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No. 2306

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United States  
Circuit Court of Appeals

For the Ninth Circuit.

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SHERMAN-CLAY & COMPANY,  
a Corporation,  
Plaintiff in Error,  
vs.

SEARCHLIGHT HORN COMPANY,  
a Corporation,  
Defendant in Error.

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Transcript of Record.

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Upon Writ of Error to the United States District Court  
for the Northern District of California,  
Second Division.

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FILED

SEP 4 - 1913

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Records of U.S. Circuit  
of appeals

835



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur. Title heads inserted by the Clerk are enclosed within brackets.]

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**Names and Addresses of Attorneys.**

NICHOLAS A. ACKER and J. J. SCRIVNER,  
Esquires, Attorneys for Defendant and Plaintiff in Error,

68 Post Street, San Francisco, California.

Messrs. MILLER and WHITE, Attorneys for  
Plaintiff and Defendant in Error,

Crocker Building, San Francisco, California.

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*In the Circuit Court of the United States for the  
Northern District of California.*

Of the March Term of Said Court in the Year of  
Our Lord One Thousand Nine Hundred and  
Eleven.

SEARCHLIGHT HORN COMPANY,  
Plaintiff,

vs.

SHERMAN CLAY & CO.,  
Defendant.

**Declaration in Trespass on the Case for Infringement  
of Patent.**

State of California,  
City and County of San Francisco,—ss.

Comes now the plaintiff in the above-entitled action, by Miller & White, its attorneys, and complains of the above-named defendant of a plea of trespass on the case.

1. For that at all the times hereinafter men-

tioned plaintiff was and still is a corporation organized and existing under and by virtue of the laws of the State of New York, and at all said times the defendant herein was and still is a corporation organized and existing under and by virtue of the laws of the State of California and having its principal place of business in the Northern District of California, to wit, at the City and County of San Francisco, in the State of California.

2. And for that heretofore, to wit, on and prior to April 14, A. D. 1904, one Peter C. Nielsen, residing at Greenport, in the county of Kings, in the State of New York, was the original and first inventor of certain new and useful improvements in Horns for Phonographs or similar machines, [1\*] more particularly described in the letters patent hereinafter referred to; that said improvements were new and useful inventions not known or used by others in this country, nor patented or described in any printed publication in this or any foreign country before the said invention and discovery thereof by the said Nielsen, nor more than two years before his application for a patent therefor hereinafter alleged, nor in public use or on sale in this country for more than two years prior to the said application, and for which improvements no application for a foreign patent had been filed by him or his legal representatives or assigns in any foreign country more than twelve months prior to his said application in this country, and which said improvements had not been abandoned by the said Nielsen.

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\*Page-number appearing at foot of page of original certified Record.

3. And for that the said Nielsen, being as afore-said the original and first inventor of the said improvements, heretofore, to wit, on April 14, A. D. 1904, filed in the Patent Office of the United States an application in writing, praying for the issuance to him of letters patent of the United States for the said invention.

4. And for that thereafter such proceedings were had and taken in the matter of said application by the officials of the Patent Office of the United States, that on October 4, A. D. 1904, letters patent of the United States were granted, issued and delivered by the Government of the United States to the said Peter C. Nielsen, his heirs and assigns, whereby there was granted and secured to the said Peter C. Nielsen, his heirs and assigns for the full term of seventeen years from the said last-named date the sole and exclusive right, liberty and privilege to make, use and vend the said [2] invention throughout the United States of America and the territories thereof.

5. And for that the said letters patent were issued in due form of law in the name of the United States of America under the seal of the Patent Office of the United States, signed by the Commissioner of Patents of the United States, and bore date October 4, A. D. 1904, and were numbered 771,441, all of which, together with a more particular description of the said invention will more fully appear from the said letters patent themselves which are ready in court to be produced by the plaintiff, or a duly authenticated copy thereof, and of which plaintiff hereby makes profert.

6. And for that prior to the issuance of said letters patent, all proceedings were had and taken which were required to be had and taken prior to the issuance of letters patent for new and useful inventions.

7. And for that by a regular chain of assignments made in writing duly executed and acknowledged, and recorded in the Patent Office of the United States, plaintiff herein became on, to wit, January 4, A. D. 1907, the sole owner and holder of the said letters patent and of all the rights, liberties and privileges by them granted and conferred, and continuously thenceforth has been and is now the owner and holder thereof.

8. And for that the invention covered by said letters patent and protected by the claims thereof is one of great value and utility, and the public generally has acquiesced in the validity of said letters patent.

9. And for that since the issuance of said letters patent, plaintiff and its assignors have practiced the said [3] invention and made, used and sold phonographic horns containing and embracing the inventions patented in and by said letters patent, and upon each of said horns so made and sold there was fixed the word "Patented," together with the day and year on which said letters patent were granted.

10. And for that notwithstanding the premises, but well knowing the same, and without the license or consent of the plaintiff or its assignors, but contrary thereto, since the 4th day of January, A. D. 1907, in the Northern District of California, to wit, at the City and County of San Francisco in the State of

California, the defendant herein has continuously and from day to day used and sold, and is now using and selling horns for phonographs containing and embracing the inventions described, claimed and patented in and by the said letters patent; that the horns so used and sold as aforesaid by defendant were and are known as the "Victor Phonographic Horns," and were and are made according to the specification of the said letters patent, and constituted and do constitute an infringement upon each and all of the claims of the said letters patent contrary to law and the form, force and effect of the Statutes of the United States in that behalf made and provided, whereby and by reason of the premises and the infringement aforesaid, plaintiff has been deprived of and has lost royalties and license fees to which it was entitled, and has been prevented from making sales of phonographic horns containing said invention which it otherwise would have made, and has thereby lost the profits which it would have made upon said sales, and has thereby sustained actual damages in a large sum, to wit, Fifty Thousand (\$50,000) dollars. [4]

11. That the plaintiff has notified the defendant of the infringement aforesaid, and has requested the defendant to cease and desist therefrom, yet nevertheless the defendant has continued after such notice to use and sell phonographic horns containing the inventions aforesaid.

WHEREFORE, by force of the Statutes of the United States a right of action has accrued to plaintiff to recover said actual damages, and such addi-

tional amount not exceeding in the aggregate three times the amount of such actual damages as the Court may see fit to adjudge, besides costs of suit, but the defendant though often requested has not paid the same nor any part thereof, and has refused and still refuses to pay the same, and thereupon plaintiff brings suit.

MILLER & WHITE,  
Attorneys for Plaintiff, Crocker Building, San  
Francisco, Cal.

[Endorsed]: Filed May 9, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.  
[5]

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**Summons.**

UNITED STATES OF AMERICA.

*Circuit Court of the United States, Ninth Judicial  
Circuit, Northern District of California.*

SEARCHLIGHT HORN COMPANY,  
Plaintiff,

vs.

SHERMAN CLAY & CO.

Defendant.

Action brought in the said Circuit Court and the complaint filed in the office of the Clerk of the said Circuit Court, in the City and County of San Francisco.

MILLER & WHITE,  
Attorneys for Plaintiff.

The President of the United States of America,  
Greeting: To Sherman Clay & Co., Defendant.

You are hereby directed to appear and answer the Complaint in an action entitled as above, brought against you in the Circuit Court of the United States, Ninth Judicial Circuit, in and for the Northern District of California, within ten days after the service on you of this Summons—if served within this County; or within thirty days if served elsewhere.

And you are hereby notified that unless you appear and answer as above required, the said plaintiff will take judgment for any money or damages demanded in the complaint, as arising upon contract, or it will apply to the Court for any other relief demanded in the Complaint.

WITNESS the Honorable EDWARD D. WHITE, Chief Justice of the United States, this 9th day of May, in the year of our Lord one thousand nine hundred and eleven and of our independence the 135th.

[Seal]

SOUTHARD HOFFMAN,  
Clerk. [6]

United States Marshal's Office,  
Northern District of California.

I hereby certify that I received the within Summons on the 10th day of May, 1911, and personally served the same on the 10th day of May, 1911, upon Sherman Clay and Company, the defendant therein named, by delivering to and leaving with L. S. Sherman, President of Sherman Clay and Company, said defendant named therein personally at the City and

County of San Francisco, in said District, a copy thereof, together with a copy of the Declaration, attached thereto.

C. T. ELLIOTT,  
U. S. Marshal.

By M. J. Fitzgerald,  
Office Deputy.

Dated at San Francisco this 10th day of May, 1911.

[Endorsed]: Filed May 16, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.  
[7]

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*In the Circuit Court of the United States, Ninth Circuit, in and for the Northern District of California.*

ACTION AT LAW—No. 15,326.

March Term, 1911.

SEARCHLIGHT HORN COMPANY,  
Plaintiff,

vs.

SHERMAN-CLAY COMPANY,  
Defendant.

**Answer.**

And the said defendant, by N. A. Acker, Esq., its attorney, comes and defends the wrong and injury when, etc., and denies generally and specifically each and every allegation contained in the plaintiff's declaration on file herein, and says that it is not guilty of the supposed grievances therein laid to its charge, or any or either of them, or any part thereof,

in the manner and form as the same plaintiff has above thereof complained against it. And of this defendant puts itself upon the country. Wherefore defendant demands judgment for its costs.

N. A. ACKER,

Attorney for Defendant.

Service of the above answer and the receipt of a copy thereof acknowledged this 25 day of May, 1911.

MILLER & WHITE,

Attorneys for Plaintiff.

[Endorsed]: Filed May 26, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.  
[8]

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*In the Circuit Court of the United States, Ninth Circuit, in and for the Northern District of California.*

ACTION AT LAW—No. 15,326.

March Term, 1911.

SEARCHLIGHT HORN COMPANY,

Plaintiff,

vs.

SHERMAN CLAY COMPANY,

Defendant.

**Notice of Special Matter.**

To Searchlight Horn Company, Plaintiff Above Named and Messrs. Miller & White, Its Attorneys, Crocker Building, San Francisco, California.

Gentlemen:—

You are hereby given notice that under and pursu-

ant to the provisions of Section 4920 of the Revised Statutes of the United States, the defendant above named will upon the trial of the above-entitled action prove and offer evidence tending to prove the following special matters, as a defence to said action, to wit:—

That the Horn for Phonographs or Similar Machines patented by the said Peter C. Nielsen, No. 771,441, dated October 4, 1904, mentioned in the declaration herein and sued on in this action, had been patented, fully shown, indicated and described prior to the alleged invention or discovery thereof by the said Peter C. Nielsen in the following letters patent of the United States and foreign countries; and the names of the patentees of said letters patent and the dates of said patents and when granted are here given, to wit: [9]

No. 8824, dated and granted Dec. 7, 1875, to Frederick S. Shirley, for an improved Design for Glassware.

No. 10,235, dated and granted Sept. 11, 1877, to Edward Cairns, for improved Design for Speaking-Trumpets.

No. 34,907, dated and granted Aug. 6, 1901, to Charles McVeety and John F. Ford, for an improved Design for a Ship's Ventilator.

No. 72,422, dated and granted Dec. 17, 1867, to George S. Saxton, for Improvements in Manufacture of Corrugated Bells.

No. 165,912, dated and granted July 27, 1875, to William H. Barnard, for Improvement in Lamp-Chimneys.

No. 181,159, dated and granted Aug. 15, 1876, to Charles W. Fallows, for Improvement in Toy Blow-Horns.

No. 187,589, dated and granted Feby. 20, 1877, to Emil Boesch, for Improvement in Reflectors.

No. 216,188, dated and granted June 3, 1879, to Thomas W. Irwin and George K. Reber, for Improvement in Water-Conductors.

No. 240,038, dated and granted April 12, 1881, to Nathaniel C. Powelson and Charles Deavs, for Improved Reflector.

No. 274,930, dated and granted April 3, 1883, to Isaac P. Frink, for improved Reflector for Chandeliers, etc.

No. 276,251, dated and granted April 24, 1883, to Philip Lesson, for improved Child's Rattle.

No. 337,971, dated and granted Mar. 16, 1886, to Henry McLaughlin, for improved Automatic Signal-Buoy.

No. 406,332, dated and granted July 2, 1889, to James C. Bayles, for improved Pipe and Tube.

No. 409,196, dated and granted Aug. 20, 1889, to Charles L. Hart, for improved Sheet-Metal Pipe.

No. 427,658, dated and granted May 13, 1890, to James C. Bayles, for improved Pipe-Section.

No. 455,910, dated and granted July 14, 1891, to William J. [10] Gordon, for improved Sheet-Metal Elbow or Shoe.

No. 612,639, dated and granted Oct. 18, 1898, to James Clayton, for improved Audiphone.

No. 648,994, dated and granted May 8, 1900, to

Major D. Porter, for improved Collapsible Accoustic Horn.

No. 651,368, dated and granted June 12, 1900, to John Lanz, for improved Composite Metal Beam or Column.

No. 699,928, dated and granted May 13, 1902, to Charles McVeety and John F. Ford, for improved Ship's Ventilator.

No. 705,126, dated and granted July 22, 1902, to George Osten and William P. Spalding, for improved Horn For Sound Recording and Reproducing Apparatus.

No. 738,342, dated and granted Sept. 8, 1903, to Albert S. Marten, for improved Interchangeable Sound-Amplifying Means For Talking or Sound-Reproducing Machines.

No. 739,954, dated and granted Sept. 29, 1903, to Gustave Harman Villy, for Horn For Phonographs, Ear-trumpets, etc.

British letters patent No. 7594, dated and granted April 24, 1900, to William Phillips Thompson for Improvements in Graphophones or Phonographs.

British Letters patent No. 17,786, dated and granted August 13, 1902, to Henry Fairbrother for improvements in Phonographs and other Talking Machines.

British letters patent No. 20,567, dated and granted Sept. 20, 1902, to John Mesny Tourtel for improvements in Phonographs.

That prior to the year 1894, devices fully showing and describing and indicating the alleged invention patented by the said Peter C. Nielsen, No. 771,441,

dated October 4, 1904, mentioned in the declaration herein and sued on in this action, had been manufactured, [11] sold and placed into use in this country, and were known to others in this country long prior to the alleged invention and discovery thereof by the said Peter C. Nielsen, the same having been manufactured, sold, placed into use and known to the following named persons, to wit:

Manufactured and sold as early as the year 1893 by the Tea Tray Company, now located at the corner of Murray and Mulberry Streets, Newark, New Jersey.

Manufactured and sold prior to the year 1896 by the firm of Noble and Brady, located and doing business in New Britain, Connecticut.

That the manufacture and use of such devices was known to John H. B. Conger, residing at #26 Van Ness Place, Newark, New Jersey; George C. Magill, residing at #31½ South 12th Street, Newark, New Jersey; Charles J. Eichhorn, whose address is corner Murray and Mulberry Streets, Newark, New Jersey; Peter Shoeppler, residing at #48 Blum Street, Newark, New Jersey; Albert S. Marten, residing at #84 N. Arlington Avenue, East Orange, New Jersey; Thomas H. Brady, residing at # 124 Washington Street, New Britain, Conn.; William J. Noble, residing at #109 Sexton Street, New Britain, Conn.; August Doig, residing at #26 South High Street, New Britain, Conn.; James Connelly, residing at #164 Beaver Street, New Britain, Conn.; and that the devices manufactured and sold and known to the above mentioned parties were used by the New Jersey

Phonograph Company, whose place of business was at the corner of Orange and Plain Streets, in the City of Newark, New Jersey; North American Phonograph Company of #30 Park Place, New York City, New York; and by others whose names, addresses and places of business are unknown at this time, but when ascertained this defendant craves leave to incorporate in the notice herein given as to manufacture, [12] sale, use, and knowledge of the alleged invention contained in the letters patent in suit.

N. A. ACKER,

Attorney for Defendant.

Service of the within Notice of Special Matter admitted this 1st day of August, A. D. 1911.

MILLER & WHITE,

For Plaintiff.

[Endorsed]: Filed Aug. 7, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.  
[13]

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*United States District Court, Northern District of  
California, Second Division.*

No. 15,326.

SEARCHLIGHT HORN COMPANY,

Plaintiff,

vs.

SHERMAN CLAY & CO.,

Defendant.

**Verdict.**

We, the jury, find in favor of the plaintiff and as-

sess the damages against the defendant in the sum of  
Thirty-five Hundred Seventy-eight (\$3,578) Dollars.

W. H. GEORGE,

Foreman.

[Endorsed]: Filed Oct. 4, 1912. Jas. P. Brown,  
Clerk. By W. B. Maling, Deputy Clerk. [14]

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*In the District Court of the United States, for the  
Northern District of California, Second Divi-  
sion.*

No. 15,326.

SEARCHLIGHT HORN COMPANY,

Plaintiff,

vs.

SHERMAN CLAY & COMPANY,

Defendant.

**Judgment.**

This cause having come on regularly for trial on the 1st day of October, 1912, being a day in the July, 1912, Term of said Court before the Court and a jury of twelve men duly impaneled and sworn to try the issue joined herein; John H. Miller, Esq., appearing as attorney for the plaintiff, and N. A. Acker, and J. J. Scrivner, Esqrs., appearing as attorneys for the defendant; and the trial having been proceeded with on the 2d, 3d, and 4th days of October in said year and term and evidence, oral and documentary, upon behalf of the respective parties having been introduced and closed and the cause after arguments of the attorneys and the instructions of the Court having been submitted to the jury and the jury having

subsequently rendered the following verdict, which was ordered recorded, namely: "We, the jury, find in favor of the plaintiff and assess the damages against the defendant in the sum of Thirty-five Hundred Seventy-eight (\$3,578) dollars. W. H. George, Foreman," and the Court having ordered that judgment be entered in accordance with said verdict and for costs:

Now, therefore, by virtue of the law and by reason of the premises aforesaid, it is considered by the Court that Searchlight Horn Company, plaintiff, do have and recover of and from Sherman, Clay & [15] Company, defendant, the sum of Three Thousand Five Hundred Seventy-eight and no/100 (\$3,578.00) Dollars together with its costs in this behalf expended taxed at \$99.20.

Judgment entered October 4, 1912.

JAS. P. BROWN,  
Clerk.

By W. B. Maling,  
Deputy Clerk.

A true copy. Attest:

JAS. P. BROWN,  
Clerk.

By W. B. Maling,  
Deputy Clerk.

[Endorsed]: Filed Oct. 4, 1912. Jas. P. Brown,  
Clerk. By W. B. Maling, Deputy Clerk. [16]

*In the District Court of the United States for the  
Northern District of California.*

No. 15,326.

SEARCHLIGHT HORN COMPANY

vs.

SHERMAN CLAY & COMPANY,

**Clerk's Certificate to Judgment-roll.**

I, Jas. P. Brown, Clerk of the District Court of the United States for the Northern District of California, do hereby certify that the foregoing papers hereto annexed constitute the Judgment-roll in the above-entitled action.

ATTEST my hand and the seal of said District Court, this 4th day of October, 1912.

[Seal]

JAS. P. BROWN,

Clerk.

By J. A. Schaertzer,

Deputy Clerk.

[Endorsed]: Filed October 4th, 1912. Jas. P. Brown, Clerk. By J. A. Schaertzer, Deputy Clerk.  
[17]

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*In the District Court of the United States, for the  
Northern District of California, Second Division.*

No. 15,326.

SEARCHLIGHT HORN COMPANY,

Plaintiff,

vs.

SHERMAN CLAY & COMPANY,

Defendant.

**Order Amending Judgment.**

In this case a judgment having been heretofore entered on October 4th, 1912, in favor of the plaintiff and against the defendant, for the sum of Three Thousand Five Hundred and Seventy-eight Dollars (\$3,578.00), together with costs taxed at the sum of Ninety-nine and 20/100 Dollars (\$99.20); and the plaintiff having subsequently voluntarily remitted from the said sum of Three Thousand Five Hundred and Seventy-eight Dollars awarded in said judgment all save and except the sum of One Dollar;

NOW, THEREFORE, on motion of plaintiff's attorney, it is ORDERED that the aforesaid judgment be amended by striking out therefrom the said sum of Three Thousand Five Hundred and Seventy-eight Dollars and inserting in lieu thereof the sum of One Dollar, and that in all other respects said judgment remain unchanged.

WM. W. MORROW,  
Circuit Judge.

[Endorsed]: Filed June 2d, 1913. W. B. Maling,  
Clerk. [18]

*In the District Court of the United States for the  
Northern District of California, Second Division.*

No. 15,326.

SEARCHLIGHT HORN COMPANY,

Plaintiff,

vs.

SHERMAN CLAY & COMPANY,

Defendant.

**Amended Judgment.**

This cause having come on regularly for trial on the first day of October, 1912, being a day in the July, 1912, Term of Court, before the Court, and a jury of twelve men duly empaneled and sworn to try the issue joined, John H. Miller, Esq., appearing as attorney for plaintiff, and N. A. Acker and J. J. Scrivner, Esq., appearing as attorneys for the defendant, and the trial having been proceeded with on the 2d, 3d and 4th days of October in said year and term, and the evidence, oral and documentary, upon behalf of the respective parties, having been introduced and closed, and the cause after arguments of the parties and instructions of the Court having been submitted to the jury, and the jury having subsequently rendered the following verdict, which was recorded, namely:

“We, the jury find in favor of the plaintiff and assess the damages against the defendant in the sum of Three Thousand Five Hundred and Seventy-eight dollars (\$3,578.00).

W. H. GEORGE,

Foreman.”

And the Court having ordered that judgment be entered in accordance with said verdict and for costs, and a judgment having been entered in accordance with said order on October 4th, 1912, in favor of the plaintiff and against the defendant for the sum of Three Thousand Five Hundred and Seventy-eight Dollars, [19] together with costs taxed at Ninety-nine and 20/100 Dollars, and the plaintiff having subsequently in open court voluntarily remitted from the said amount of Three Thousand Five Hundred and Seventy-eight Dollars awarded in said judgment, all except the sum of One Dollar, and the Court having thereafter ordered that the said judgment be amended by striking out the said sum of Three Thousand Five Hundred and Seventy-eight Dollars, and inserting in lieu thereof the sum of One Dollar:

NOW, THEREFORE, by virtue of the law and by reason of the premises aforesaid, it is considered by the Court that the Searchlight Horn Company, plaintiff, do have and recover of and from Sherman Clay & Company, the defendant, the sum of One Dollar, together with costs in this behalf expended and taxed at Ninety-nine and 20/100 Dollars.

Judgment entered June 2d, 1913.

W. B. MALING,  
Clerk.

A true copy: Attest:

[Seal]

W. B. MALING,  
Clerk.

[Endorsed]: Filed June 2d, 1913. W. B. Maling,  
Clerk. [20]

*In the District Court of the United States for the  
Northern District of California.*

No. 15,326.

SEARCHLIGHT HORN COMPANY

vs.

SHERMAN CLAY & COMPANY.

**Certificate to Judgment-roll.**

I, W. B. Maling, Clerk of the District Court of the United States for the Northern District of California, do hereby certify that the foregoing papers hereto annexed constitute the judgment-roll in the above-entitled action.

Attest my hand and the seal of said District Court,  
this 2d day of June, 1913.

[Seal]

W. B. MALING,  
Clerk.

By J. A. Schaertzer,  
Deputy Clerk.

[Endorsed]: Filed June 2d, 1913. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [21]

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*In the District Court of the United States, in and for  
the Northern District of California, Second Divi-  
sion.*

No. 15,326.

SEARCHLIGHT HORN COMPANY (a Corpora-  
tion),

Plaintiff,

vs.

SHERMAN CLAY & COMPANY (a Corporation),  
Defendant.

**Defendant's Bill of Exceptions.**

Be it remembered that the above-entitled cause came on regularly for trial on Tuesday, the 1st day of October, 1912, in the above-entitled court, N. A. Acker, Esq., and J. J. Scrivner, Esq., appearing for the plaintiff, and Miller & White, Esqs., for the defendant. A jury having been duly empanelled and sworn to try the cause, proceedings were had and testimony taken as follows:

**ADMISSION.**

It is admitted that at the time of the commencement of this action title to the letters patent in suit was vested in the plaintiff.

**OPENING STATEMENT.**

Mr. MILLER.—If your Honor please, and gentlemen of the jury: It will be necessary now for me to state to you a great deal more in detail what this case is about, so that you can follow the evidence as we go along. What I am going to state to you now is simply my side of the case, that is, what [22\*—1†] I expect to prove. You are not to be influenced by anything that I may say now, in the shape of evidence, because the evidence will come later, and if the evidence does not sustain what I am going to say to you, of course, you will have to follow the evidence, and disregard it; but if the evidence sustains what I am going to say to you now, then, we claim you should decide the case in favor of the plaintiff.

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\*Page-number appearing at foot of page of certified Transcript of Record.

†Original page-number appearing at foot of page of Bill of Exceptions as same appears in Certified Transcript of Record.

Now, this is a suit for an infringement of a patent, and the patent relates to a horn for phonographs. Of course, you are familiar generally with phonographs, but perhaps you have never paid very much detailed attention to the horn on the phonographs, which is simply that part which allows the sound to come from the instrument. We have nothing to do with the phonograph itself, that is, with the mechanism of the phonograph, but only with the horn.

This patent I shall show you was granted to a man by the name of Neilsen, who was a Danish subject, recently come to the United States, along about 1904, and in 1904 he invented this horn, applied for a patent and obtained his patent, which will be shown to you. It was dated October, 1904.

I shall show to you that when Neilsen came upon the scene, or prior thereto, the phonographs all used one general style of horns, that is, an instrument like a blowing horn that you have seen on the old style phonographs. You do not see many of them now. That horn was the one that was originally invented by Mr. Edison, some years before that. Up to the time that Neilsen came upon the scene in 1904, those were the horns that were used.

Now, it turned out that those horns were not efficient in one respect. They were all made of metal, one piece of metal, bound together with a seam down the side, and the trouble with it was that when the sound was reproduced through the [23—2] instrument, the sound took on a part, or took on the sound of the horn itself; that is to say, the horn being made of metal it would vibrate as the sound

would come through and it would impair the music that was going through the horn, and its own vibration, tintinnabulation as it is called, would thereby adulterate the music so that it would not come through clearly and distinctly. It impaired the music and gave it a metallic sound. That was imparted by the horn itself by reason of its structure. That was the condition of the art when this man Neilsen came upon the scene in New York. He saw the trouble and he got up this invention for the purpose of obviating that difficulty. That is, he got up a horn that would do away with that vibration. It was of a shape with a large, flaring mouth, the kind of a horn that is used in commerce now, and introduced that into use in New York, and secured his patent for it. That proved to be a very efficient implement and the result was that the old style horns went out of use. They went out of manufacture. Those that were on hand of course would be used, but they stopped manufacturing the old style horns and adopted the style that Neilsen had put upon the market.

We will show you the original horn that Neilsen made—the first horn of that kind probably that was ever made in the world. We will show that when that was shown to people in New York that they adopted it immediately, and the infringements became so numerous throughout the country that Neilsen got disgusted and went back to Denmark, where he lived, and sold out his patent to a company, and that company is now bringing the suit for an infringement of this patent.

Now, the suit is brought personally against Sher-

man Clay & Company, who have sold horns of this kind. They have sold the Victor phonographs, and in connection with that Victor phonograph they sell the horns that go with it. You are [24—3] familiar with phonographs, the Victor phonograph and the Edison phonograph and the Columbia phonograph, and the other kinds that are on the market to-day. This standard horn that is used by the Victor Phonograph Company, or the Victor Talking Machine Company, as it is called, is the horn which is claimed by us to be an infringement, and we shall show you that it is a horn made in sections, shaped flower like, with a large, flaring mouth, and it is known in the art as the flower horn, because the sections of it resemble the petals of a flower. They are generally called flower horns for the reason that they resemble flowers in that respect. This horn has ribs on the outside of it over the joints between the parts and the theory of it is that when the sound passes through the horn that those ribs will break up the vibrations of the horn to a certain extent and minimize them so that the metallic sound which was in the old horn will be minimized to a large extent.

The COURT.—What is the material?

Mr. MILLER.—The material is metal, generally tin. They may be made of any other sheet metal, but tin is generally the metal that these horns are made of. Now, the old horns, such as you have seen, were horns that looked like a megaphone, or a fish horn, or something of that kind—they were used on all of the early phonographs, but you do not see many of those old horns now when you go around from

place to place. I believe they have one in the restaurant out at the Cliff House. I noticed it there, but you will find very few of them in use now. Those horns are all made in one piece of metal that is folded over and then there is one joint or seam from the inner end to the outer end. If you pass any sound through that horn a vibration takes place in the horn itself. That is the theory that a musical instrument that you blow through [25—4] is made on. When you blow through a horn of any kind, the horn begins to vibrate. Those vibrations are caused by the voice or the music that passes through the horn itself, and in the case of a musical instrument, part of the music is produced in the way of vibration of the horn itself, and for that reason it is desirable to have a horn like a cornet, or other horns of that kind, all made of spun brass in one piece, so that those vibrations will add to the music of the instrument, but in the case of a phonograph horn you have a different proposition. There all you want to do is to reproduce by the instrument the music that is stored up there. The music that has been stored up, canned as they say, into music itself. You want to get that music out of the machine and carry it into the air so that when you listen to it you want to have it as clear and unadulterated as possible. If an opera singer would sing into the machine you would want to produce it exactly like the singer's voice just as much as possible. You do not want anything about the machine that will adulterate the music. With the old style horn that singer's voice would pass through the horn and be delivered into the air with

these vibrations of the horn. The horn would set up a kind of music or tintinnabulation of its own and that would mix with the voice so that as the voice came out from the horn it would not be pure and unadulterated, but would be mixed with the vibration of the metallic horn itself. That was the great trouble with these phonographs when they first came out. Everybody would say that the voice sounded metallic, it had a metallic ring, or it is smothered, it does not come out clear there just as it would if the person were in the room singing. That was caused by the horn.

The theory of this patent is that by changing the construction of the horn that difficulty is minimized, if not [26—5] entirely obviated, to a large extent. That is done by making this horn into sections shaped like a bell, so that it has a big broad flaring mouth, instead of a narrow one, or a contracted one, and by making it in separate sections and putting ribs between those joints or sections you break up the vibration. When the horn begins to vibrate, the vibrations go towards the joints and those vibrations will cease then, just as when you throw a petal into a pond of water, you will notice that the ripples spread around all the way, but if there is an obstruction that breaks up the ripple. That same theory is applied to this horn. With solid metal horns the vibrations go all the way round and those vibrations are what give out the metallic sound.

The COURT.—It seems to me that you are repeating yourself. You have gone all over that once.

Mr. MILLER.—I simply wanted to impress on the

jury what the theory of the case was. I shall not dwell on this part of the matter any longer, at the suggestion of the Court. We will now proceed to produce the testimony to sustain the facts. I have just stated to you what I expect to prove.

**[Stipulation Concerning Certain Offers in Evidence,  
and of Facts.]**

Mr. MILLER.—I desire to read into the record a short stipulation:

“It is hereby stipulated and agreed by and between the parties to the above-entitled action as follows:

“1. Upon the trial of said action uncertified copies of letters patent may be offered in evidence by either party with the same force and effect as the originals or certified copies thereof.

“2. That the plaintiff and the defendant were and are corporations created and existing respectively under the [27—6] laws of the States of New York and California, as alleged in the declaration.

“3. That certified copies of recorded assignments from the United States Patent Office showing the chain of title to letters patent No. 771,441, dated October 4, 1904, sued on in this action, may be used in evidence in lieu of the originals with the same force and effect as the originals.

“Dated this 8th day of August, 1912.”

That is signed by the attorneys for the respective parties.

The first piece of evidence I will offer is the original letters patent sued on in this case, No. 771,441,

dated October 44, 1904, to Peter C. Nielsen, Green Point, New York. I ask that this patent be marked Plaintiff's Exhibit "A."

(Patent marked Plaintiff's Exhibit "A.")

**[Testimony.]**

**[Testimony of Christian Krabbe, for Plaintiff.]**

CHRISTIAN KRABBE, called, sworn and examined as a witness on behalf of plaintiff.

Direct Examination.

Mr. MILLER.—Q. Where do you live?

A. I live in Yahpank, Long Island.

Q. What business are you engaged in?

A. I am in the electrical business at 292<sup>1</sup> Broadway, Brooklyn, New York.

Q. In New York State?      A. Yes.

Q. State what you mean by "the electrical business."

A. Why, I sell electric light and bell supplies and do electric light work and all kinds of things, all kinds of electrical repair work, connected with the electric lights [28—7] in the house, selling supplies and things of that kind.

Q. You are in the electrical supply business?

A. Yes.

Q. How long have you been engaged in that business at Brooklyn, New York?

A. Twenty-five years.

Q. Have you ever dealt in phonographs of any kind?

A. Yes. I believe I was the first man in Brooklyn to deal in phonographs.

(Testimony of Christian Krabbe.)

Q. What phonograph did you first begin to deal with?

A. I deal in the Edison phonograph. The first machine I sold was an Edison phonograph.

Q. That, I suppose, was a great many years ago?

A. Yes, I do not recollect how many years ago. While I was in the electrical business I was agent for the Edison Company, selling their batteries and things of that kind and electrical things that came out. I went to their electrical show and I seen this first phonograph. They were asking a lot of money at that time. A friend of mine who has a large factory, he wanted to buy that phonograph and he asked me if I was agent for the Edison machine, because he thought I could get a discount for the Edison. He thought I could just as well get it as anybody else. I got him to buy that machine and that was the first machine I sold.

Q. After that did you continue to sell the machines?

A. I got interested in the business and I started in to sell phonographs.

Q. When you first started in to sell phonographs, what kind of horn was on them?

A. A small, little piece of tin horn about eleven or ten or twelve inches long, and about five inches in the front to a little narrow tube. That was the reproducer, that was the one that made the sound. They [29—8] had a horn, too, of that same shape, made of tin, and that is what they used to record. Then they had ear trumpets, rubber pieces so as to

(Testimony of Christian Krabbe.)

put in the ears and little tubes that go into the ears, because that wasn't a large horn that they had. These rubber tubes were attached to that rubber horn, and you put these rubber tubes in your ear.

Q. That was the first stages of the game?

A. Yes. With every outfit there always came a lot of rubber tubes that went into the ear and these little pieces of horn, about that long (indicating).

Q. And that kind of a horn was used for about how long?

A. For some years, then, when they sent out phonographs, they had a little horn, a little bit longer, made out of tin, and in the end of it they had a little bell-shaped mouth and it came out to a flaring end.

The COURT.—Flaring end?

A. Not flaring exactly, just a little bend in the shape of the horn. The rest was made out of tin and the end was made out of brass.

Mr. MILLER.—Q. Have you got one of those horns here that you can show us?

A. Yes. This was the kind of a horn, but much smaller. It was the same shape as that, about twelve inches long and smaller at the end like that (indicating).

Q. Did they afterwards start to use this horn?

A. No. With every machine you bought there was a horn went with the machine, twelve inches, with a flaring end. If you wanted to buy an extra horn you had to pay \$5 or \$3.50, or something like that, or \$7 or \$8 got an extra horn, got one like this. If you did not get the extra horn, you would get one

(Testimony of Christian Krabbe.)

like this, all made out of one piece, spun like this, just like this. [30—9]

Q. Now, up to about the year 1904, along about that time, what kind of horns were being used? Up to the year 1904, say along about in the spring of that year, what kind of horns were then being used?

A. This kind of a horn, little horns like this, but made out of tin, without a flare on it.

Q. Did you know this man Neilson, whose patent is sued on here?

A. No, I did not know him previous to that time when he called to see me.

Q. When was it he called to see you?

A. Some time in 1904, in April. I don't recollect the date exactly.

Q. You say you did not know him before that?

A. No. I heard of him. I heard that there was a man with a Swedish name, or a Danish name over in Greenpoint that was manufacturing a new kind of a horn which looked like a flower, what they called a flower-horn, but I never took much stock in it. I heard about it, that was all.

Q. State what occurred when you first met him.

A. One evening in April I was standing in my store doing business and selling a man a phonograph or a horn or something like that, and a man called in my place. Neilsen called at my place and he had a horn in a bag, in a black bag. He waited until I was done doing business with the people who were in my store, and when I was done doing business with the people he asked me if I would talk to him and I said,

(Testimony of Christian Krabbe.)

“Yes.” He said he would like to sell me some horns. I talked with him and one thing and another, and then he took out of his bag the horn. I looked at the horn. It was a plain horn. I asked him how much that would sell for and he said \$3.50 or \$2.50, I can’t remember exactly what he said, but something like that, \$2.50 or \$2.75 or \$3.00. I can’t remember exactly [31—10] what he said. I don’t remember. I think it was \$3.50, maybe he said something like \$2.50 or \$3.00. I can’t remember exactly. I wasn’t very much interested because the price was too high. I was buying these horns like this for \$1.10 and \$1.25 and \$1.55, according to who was making the horns, so I did not think it would pay me to bother with the kind of horns he handled because it was too much money for them.

Q. Have you got that horn that he showed you?

A. Yes.

Q. That is the horn he took out of the black bag (indicating a horn) ?

A. Yes, that is what Mr. Neilsen brought, yes.

Q. After you had looked at the horn, what occurred between you and he then?

A. Oh, he was kind of a snappish sort of a man. We stood there talking for awhile and then he put the horn in the bag and closed the door and went out. I did not bother any more about it. He was a kind of a snappish man and he walked out of my place of business.

Q. You did not do any business with him?

A. I did not do any business with him at all.

(Testimony of Christian Krabbe.)

Q. I understood you to say that you were only paying \$1.10 for your horns?

A. \$1.10, \$1.65 or something, but much cheaper than he asked me.

Q. You say that he asked you \$3.50 or so for the horns? A. Something of that kind.

Mr. MILLER.—At this point we offer in evidence that first horn and ask that it be marked Plaintiff's Exhibit 8, the same being for the purpose of showing the state of the art at the time. We next offer in evidence this second horn and ask that it be marked Plaintiff's Exhibit 9.

Q. After Neilsen put his horn in the bag and went away, when was the next time you saw or heard anything about a horn of that kind? [32—11]

A. I live quite a little ways in another part of town from my store and when I went home to lunch one time; after supper I went past a store where a man was doing a little phonograph business. He was a new man that had just started in business. I looked in his window and I saw a horn hanging like this in his window. This was also in Brooklyn not far from Greenpoint. That is a short distance from Brooklyn. I seen the horn in the window.

Q. What was the name of the man that was conducting that store?

A. His name was Kanofsky. I think that is about right.

Q. He had a store similar to yours?

A. He was in opposition. He was running a store

(Testimony of Christian Krabbe.)

in opposition to me, two or three blocks away from me.

Q. How long after you had seen Neilsen was it that you passed the store and saw the horn there?

A. I could not exactly tell you. Maybe a few weeks and maybe a month, or something like that. I am not exactly sure about that.

Q. You say you noticed in this man's window a horn similar to the one that Neilsen had shown you?

A. Similar to the horn that he showed to me I saw in the window.

Q. What happened next, as far as you know?

A. I began to wonder about it. I did not think so much about it at the time. I waited for a while and pretty soon everybody comes into my store and they wanted to know if I have got that new kind of a horn, that Swedish horn. I told them I did not have that. They did not want to see any other kind. They wanted to buy that kind or they wouldn't buy a machine unless I had that kind of a horn. Then I commenced to think that I ought to go and get some of them.

Q. Then what did you do?

A. There is a wholesale place over in New York, on the west side of Broadway was all [33—12] wholesale places at that time, and the phonograph business was increasing with the different people selling supplies to the jobbers. I went to a place, but the name of the place I think was Plagmar. He was the agent for the Edison and Victor people. I went into the store, and in looking into the window

(Testimony of Christian Krabbe.)

I seen a whole window full of these horns like this, painted in different colors and of different designs, blue and red and all kinds in the window. I went in. I was going to different wholesalers to see where I could get them the cheapest. Some of them would sell them for \$1.10 and some of them for \$1.25 and some for \$1.60, according to the make of the horn. Everybody was making these horns at that time.

Q. The first horns?

A. Yes. After I had bought the things I wanted, I was coming out and there was a clerk standing there, and this clerk I could identify if I saw him again. I asked him about how he got these horns, and he said to me that some Swedish man or some Dane or Swede came in there and offered to give them the agency for the horn and the exclusive sale of it, but he did not come back. I went across the street to *Bettne*, something like that. They were wholesalers for the Edison and Victor machines too. He did not come back no more. He said he sent down to the Tea Tray Company, I think it was, and they made them for them.

Q. What kind of horns were those?

A. Just made just like that. I haven't got any of them here. Just the same thing.

Q. The same kind of a flower horn?

A. The same shape, like this. They were making them as people wanted them.

Q. Where was the next place, if any, that you saw this flower horn? [34—13]

A. In Bettene's. He had the Neilsen horns there.

(Testimony of Christian Krabbe.)

Q. Who was Bettene?

A. He was a wholesaler the same as the first place.

Q. In New York City?     A. Yes.

Q. And you saw some of Neilsen's horns there?

A. Yes.

Q. You saw those horns there?     A. Yes.

The COURT.—Q. How do you know they were the Neilsen horns?

A. Because they told me. The clerk told me that they were made in Greenpoint by a man named Neilsen.

The COURT.—Q. Did they have a patent?

A. They had applied for a patent and they showed me a little piece of yellowish paper that was pasted in the horn and it said on that "Patent Applied." That is as far as I can recollect what was on that piece of paper. It was about like that.

Mr. MILLER.—Q. Did you ever run across Neilsen again?     A. Yes.

Q. State what occurred then.

A. I kind of got sorry that I did not pay attention to him when he first came in. I thought he was a kind of a snappish man, but maybe I could have done some business with him. I began to look him up. I went over to Greenpoint, my intention not being to buy any patent of him or anything like that. I went over there to see him about getting a few horns, maybe I could get them cheaper than I was paying Bettene, or the other people for them. I went to his place and I saw him and I asked him if I could come in. I asked him that because [35—14] he left

(Testimony of Christian Krabbe.)

me so bad, I thought maybe he would not want to see me. I went in because I thought I could buy the horns cheaper from him. He was living on the second floor and downstairs was an empty store, and he was manufacturing the horns down there. He had a room there and he had a lot of stoves in there to heat the colors with. He had a lot of oil stoves to heat the thing up. I went down and he showed me about manufacturing them. He commenced to talk Danish to me. We spoke together in Danish. He commenced telling me that he had lots of trouble about people that were all making them, but when he got his patent—he went to an attorney—he showed me the patent that he had. I saw the patent. He said that the Bettene people he was going to sue, but he did not prosecute the other people, the other people that was making them.

Mr. SCRIVNER.—I think this has gone about far enough to what occurred between the witness and Neilson.

The COURT.—I think a good deal of this is not at all material.

Mr. MILLER.—I will shorten it up.

Q. You say your conversation with Neilsen was carried on in the Danish language? A. Yes.

Q. Did you see any horns there at Neilsen's place?

A. Yes. He took me down in his shop and he had them all over the shop. He had an empty store there and he showed me horns, lots of horns.

Mr. SCRIVNER.—The witness should not be telling what Neilsen said.

(Testimony of Christian Krabbe.)

The COURT.—He has not been since you made your objection. You let it go on for about half an hour and then you made your objection. [36—15]

Mr. MILLER.—Q. How did these horns which Neilsen showed you compare with these horns which you have produced here?

A. The same thing. He had two different kinds. They are both alike. Some of them had been made this way and some of them with the edges turned down like that. There were two kinds standing around.

Q. What do you mean by two kinds?

A. The same as this, some of the edges were flattened up and some of them were round with edges like this.

Q. I understand that it finally came about that you made some kind of a deal with Neilsen about the patent? A. He began to tell me—

Mr. SCRIVNER.—Never mind that.

Mr. MILLER.—Q. Just answer the question, if you made a deal with him.

A. I made a deal with Mr. Neilsen.

Q. Are you the same Christian Krabbe that is mentioned in this assignment here, dated February 5, 1905, which I now show to you? A. Yes, sir.

Q. You got that assignment from Neilsen?

A. I got that assignment from Neilsen, yes, not that evening, I did not get it that evening.

The COURT.—Q. No, no, but you did get it later?

Mr. MILLER.—Q. You got it later, is that it?

A. Yes, but I could not remember the date exactly.

(Testimony of Christian Krabbe.)

Q. The ultimate result of your visit was that you got this assignment?

A. Yes, he sold his whole right and all to me. He agreed as a part of the bargain to work for me and help in the manufacture of horns for one year for \$2.65 a day, for which he gave me a paper. [37—16]

Q. Did he come with you after that when you got the patent? A. Yes.

Q. What did you go with regard to the manufacture of horns?

A. We started a company. He still remained in his house, because his lease had about another month or so to run and he had to pay for that month's rent over in the other place. He still stayed there and made horns and I sold some of his horns to Douglas & Company, which was the agent for the Victor and Edison people at that time. They were made to be used on the Edison machine and they were marked "Patented."

Q. It appears, according to this assignment here, that you afterwards ran across a man by the name of William H. Locke, did you? A. Yes, sir.

Q. You know him? A. Yes.

Q. This assignment from you to Mr. Locke, or rather this is an assignment from Christian Krabbe to Mr. Locke conveying a one-half interest, has been offered in evidence, the same being dated the 14th day of February, 1905. I will show it to you and ask you if you remember about that transaction?

Mr. SCRIVNER.—This is utterly immaterial. His title has already been shown, subject to our ob-

(Testimony of Christian Krabbe.)

jection and those matters are now before the Court and the jury.

Mr. MILLER.—Q. Are you the Christian Krabbe mentioned in that document? A. Yes, sir.

Mr. SCRIVNER.—It is immaterial whether he is or not. That is in evidence without objection.

The COURT.—It is in evidence.

Mr. MILLER.—Q. What occurred after you made the assignment in regard to the manufacture and sale of horns?

A. I told you that Mr. Neilsen kept on working for me, but he worked over in Greenpoint. I sold those horns, and I told [38—17] you before, I sold several hundred to Douglas & Company, who were the agents for the Edison and Victor people, and they were put on the Edison and Victor machines.

Q. After the formation of the United States Horn Company, what did they do with regard to the manufacture of horns?

Mr. SCRIVNER.—I object to that as irrelevant, incompetent and immaterial.

The COURT.—Objection overruled.

Mr. SCRIVNER.—Exception.

A. Manufactured horns. After I made a transfer with the United States Horn Company—

Mr. MILLER.—Q. I will ask you the questions.

The COURT.—Answer the questions that are asked of you.

Mr. MILLER.—Q. What kind of horns did you make during that time?

A. The United States Horn Company made this kind here.

(Testimony of Christian Krabbe.)

The COURT.—Q. What kind is that?

A. This is the flower-shaped horn.

The COURT.—Q. Exhibit No. 9?

A. This is the same kind of a horn. I bent the edges over because it was cheaper to make them with the edges bent over than this way.

Mr. MILLER.—Q. Have you got samples of those horns here? A. Yes.

Q. Will you just pick them out and produce them?

(The witness does as requested.)

A. These are the ones.

Q. The one that you now hold in your hand is a blue one? A. Yes.

Q. How is that blue one constructed?

A. That is constructed with the ribs put together, the outside ribs [39—18] put together, the outside ribs put together, the same as this one.

Q. In that blue one the ribs are put together just the same way as that first horn that Neilson showed you? A. Yes.

Q. That is put together with just a straight flange seam? A. Yes.

Q. Is that one of the horns which you made during that time?

A. Yes, this is the horn that was made by the United States Horn Company.

Mr. MILLER.—I offer that horn in evidence.

The COURT.—What is the difference between the blue and the red one?

Mr. MILLER.—I will get at that in a moment. I ask that this blue horn be marked as Plaintiff's Exhibit 10.

(Testimony of Christian Krabbe.)

Q. Now, the red horn that you hold in your left hand. What about that?

A. The red horn is the same kind of a horn. The United States Horn Company wanted to make the price of the horn as cheap as they could, because every little tinsmith was trying to make them, and they tried to get the business down so that they could make more money and they found that they could make more money by making them like that, so they turned the edges over this way, making the same kind of a horn, only making the edges cheaper by making them *a* like that than the other way.

The COURT.—Q. When you say “edges” you refer to the seams?

A. Yes. It cost more money to make them this way because of the solder that is in here. They could make them cheaper this way.

Mr. MILLER.—Q. In this horn you did not have to use any solder? A. No, sir. [40—19]

Q. And in this one you did have to use solder?

A. Yes.

Mr. ACKER.—This is the soldered one?

The COURT.—The blue one is the soldered one and the red one is the unsoldered one. The witness refers to Exhibit 9 here when he says this is the soldered one.

Mr. MILLER.—I offer this red horn in evidence now and ask that it be marked Plaintiff’s Exhibit No. 11.

Q. Now, while you were manufacturing those horns, the blue ones and the red ones, was Mr. Neil-

(Testimony of Christian Krabbe.)

sen there working for you?

A. Yes, he stayed there some time working for me.

Q. And you were paying him wages?

A. According to contract. We made a writing there that was a part of the sale, being that he agreed to work for me for \$2.65 a day for one year and help me manufacture the horns.

Q. Did he finish out the year with you?

A. He stayed there four or five or six months, and he said his eyes got sore. I don't know the reason, but he says he could make more money somewhere else and he went to Denmark. He told me he would come back again.

Q. He did not work out the entire time that he agreed to work for you? A. No, sir.

Q. Are you satisfied that while he was working for you that he worked and made these two styles of horns? A. Nothing else, all the time.

Q. Some like the blue and some like the red ones?

A. Yes. Those were taken out of two stacks of horns where there were thousands of them right between those.

The COURT.—Q. Those samples were taken out?

A. Yes. These are the ones. These were taken out and marked. These were taken right out of the bundles.

Mr. MILLER.—Q. You have some more of them in stock? [41—20] A. Yes,

Q. I hand you another horn that is painted black, edged with gold, and I ask you to state what horn that is?

(Testimony of Christian Krabbe.)

A. That is my horn. That is the Neilsen horn.

Q. Is that one of the horns that were made during that time?     A. Yes.

Q. And that Neilsen worked on?     A. Yes.

Q. What other horn here that has already been put in evidence is the construction of this horn like?

A. This one, only painted different.

Q. Like the blue one?

A. Yes, just the same only painted with a different color, that is all.

Q. You did not always paint them with the same color?

A. No, we painted them black or red or whatever color the people wanted.

Mr. MILLER.—I offer this last horn in evidence and ask that it be marked Plaintiff's Exhibit 12.

Q. I now show you another horn and ask you what horn that is?

A. That is the same thing, that is the same as the other horn.

Q. How are the joints made there?

A. The joints are made in the cheaper way, as I explained before.

Q. Folded over?

A. Folded over. This gentleman was familiar with all kinds of tinsmith work and he found it was cheaper. He had a little machine to roll it and make it cheaper.

Q. Is this one of the horns that was made by you at that time?     A. Yes.

Q. And that is taken out of your stock?

(Testimony of Christian Krabbe.)

A. Taken from my place. We have been closed up ever since we gave up the business.

Mr. MILLER.—I will ask that this horn be marked Plaintiff's Exhibit No. 13. [42—21]

Q. I now show you another horn and ask you if you recognize what kind of a horn that is?

A. That is the horn which the Victor people have been making all the time instead of buying from us.

Q. How are the joints in that horn made?

A. The same as ours, just the same, except a little bend there, they make a little bend there.

The COURT.—A little bend at the joints?

A. A bend at the end of the joints. When you ship them they get bent up and it is easier for them to ship them this way because they do not bend together. This is bent this way so as to make them easier to ship. It folds up this way and that is the only difference. They did not make them right away like that. They made them just like mine. After they found out that this was better then they made them like that.

Mr. MILLER.—I will offer this in evidence and we will produce further proof of it later. I ask that it be marked Plaintiff's Exhibit No. 14.

Q. What was this Neilsen horn named or called by, what term? A. Flower.

Q. After the Neilsen Flower Horns were thus introduced to the market as you have heretofore stated, to what extent did they go into use.

A. Oh, everybody used them on their machines. Everybody that had a machine used a Flower Horn.

(Testimony of Christian Krabbe.)

They were bought by everybody, by every agent, the drygoods stores, the department stores, and everybody introduced them by offering all kinds of prices and everybody wanted them.

Q. What effect did that have on the manufacture and sale of the old style horn that you have referred to? A. Nobody wanted the old style horn.

Q. Can you give me any instance in your experience regarding the old style horn to show how it went out of use. [43—22]

A. People would come in to me and ask me if I would trade one of the new horns for the old style horn. They would want the new style horn and I would allow them a little for the old style horn.

Q. You would allow them a little in the trade?

A. Yes, and I would use them for old brass or whatever I could use them for.

Q. Did you ever see any of these old style horns afterwards sold?

A. I seen them at auction sales but nobody wanted to give anything for them. They were sold for a few cents, ten or fifteen cents.

Q. How as it with regard to the price of these Flower horns? Do you remember about how much they sold for?

A. They sold at all prices. Two dollars, a dollar and a half, two dollars and a half, according to how they were decorated. Some of them sold for three dollars or five dollars. The Edison people and the Victor people used them.

Q. I will ask you with regard to these horns that

(Testimony of Christian Krabbe.)

were being made and sold by the United States Horn Company, and also by yourself and Neilsen, and ask you to state whether or not they were marketed with any patent mark or number?

A. Always a patent mark made out on a piece of paper. Mr. Neilsen gave me a whole box full of those papers. When he got his patent he had some kind of a little mark "Patent applied for" and he gave me a whole bunch of those papers and I would paste them on the horns when I sold them.

Q. That was a little paper that was pasted on?

A. Yes, pasted on.

Q. What class of people went into the making of these Flower [44—23] Horns after the matter became public?

A. Every little tinsmith, every little tin store and small shop started in making horns.

Q. How was it with regard to the phonograph companies at that time? Did they make their own horns?

A. They only sold the kind of horns which I explained to you, at that time.

Q. Who manufactured the horns for the phonograph companies?

A. The Tea Tray Company, I believe, and the Standard Metal Company of New Jersey, sold to the companies at wholesale.

Q. In the first stages of the game was the horn a part of the equipment of the phonograph?

A. No, sir.

Q. How were the horns gotten then?

(Testimony of Christian Krabbe.)

A. Well, they would buy them extra. They would buy the horn extra. When you bought a machine you only got a little horn, and everybody wanted one of these horns, and if they wanted one of these horns they had to go and buy it. They had to buy the horn extra. That was the reason the department stores and everybody was making inducements to people to buy these horns.

Q. How was that later?

A. Well, later the Edison and Victor companies—they have a contract—we had to sign a contract before—that we would sell no machine of any other kind, either Victor or Edison, and we were agents of the machines to sell them under certain conditions. Certain things *were* could not do, and we could so and so. I cannot describe it all because it is a very hard condition whereby you were bound to sell the machines. After a while you must buy the horn from them, so they could get all of the dealers. They said if you buy a machine you cannot get a machine unless you take one of the horns, and they raised the price of the machine to cover the extra price for the horn. After that they stuck my business altogether. Only occasionally I [45—24] could sell one when somebody wanted to buy one for themselves. If they didn't want to pay five dollars for the horn they would come to see me and get one cheaper.

Q. The phonograph companies finally made the horn a part of the equipment?

A. Yes, and charged extra.

Q. They charged extra so as to make up for the

(Testimony of Christian Krabbe.)

price of the horn?     A. Yes.

Q. And in that case when you bought a phonograph from the company you had to buy a horn from the company also?     A. Yes.

Q. And that was not the case in the first stages of the game?     A. No, sir.

Q. Then you could buy the horn anywhere you liked?     A. Yes.

Q. And after they made the horn a part of the equipment, what became of these various dealers?

A. They had to go out of business.

Q. They no longer had any sale for their horns?

A. No, sir.

The COURT.—We will take a recess until two o'clock.

Mr. MILLER.—The direct examination of this witness is closed.

Cross-examination.

Mr. ACKER.—Q. In order that the record may be clear and so that the facts may be presented in connection with these horns, I will ask you to state when the smaller horn which you produced this morning and which was introduced in evidence as a black horn exhibit No. 8, was manufactured? [46—25]

A. That was made in the first beginning—a few—five years after the phonograph was first sold, this came out, and up to this date I suppose they have made incidentally a few of them, and they are on the market yet, but there is no demand for them. I don't know whether they are manufactured or not.

Q. From what year does the manufacture of that

(Testimony of Christian Krabbe.)

horn date to your knowledge?

A. To my knowledge, oh, say, ten years ago.

Q. Is that all?     A. Ten years ago.

Q. That would be 1892?

A. 1902. No, before that time. I believe before that time.

Q. How long before then?

A. I did not keep that in my memory how long. I could only tell that by the date when I first bought the Edison. I have never kept any record of the time of those dates, but it seems to be ten or twelve years, and maybe longer. I ain't sure.

Q. Do I understand that you have only been connected with the phonograph business since 1902?

A. No, I was connected with the business when it first started. I was one of the first stores in Brooklyn that sold a phonograph.

Q. Was that horn that you have referred to in use when you first started in business?     A. No, sir.

Q. Your knowledge of the horn, exhibit No. 8, dated approximately from 1902?

A. No, maybe even before that. I will not state exactly, because I cannot at this minute recollect. I did not think it was necessary for me to keep that in mind.

Q. How is the metal constituting the body of the horn united?

A. United in this with that seam, put together with a seam. The seam in this horn is inside.

Q. How is that seam formed?

A. By taking two pieces of metal and joining the

(Testimony of Christian Krabbe.)

edges together and then bending each [47—26] one of the edges and pressing them together.

Q. What form of a seam would you call that, what is it known as in the art of the trade?

A. I am not a tinsmith. I don't know the names of the different seams.

Q. You have no knowledge one way or the other as to the form of the seam which is disclosed in that horn and the form for the union of the metal constituting the body of it?

A. No, sir; this is an ordinary seam used for lots of purposes. We use that kind of a seam for lots of purposes.

Q. How long has that seam been known to you as a manner for uniting pieces of metal?

A. I suppose I have seen it every since I was a little boy in different articles. Not in horns only, but all kinds of seams joined together.

Q. In joining tinware together?

A. As near as I can remember.

Q. How long have you known of that form of seam being used in connection with the manufacture of phonographic horns?

A. I never took any look at the seam, what kind of a seam was in the horn. I never watched the seam in the horn. I know there was a seam in the horn that I sold. Some of them might have been made different for all I know. As far as I recollect, this is the way that we made them here.

Q. Is it fair to assume from your testimony that that form of seam has been used in connection with

(Testimony of Christian Krabbe.)

the manufacture of phonographic horns since as early as 1894?

A. Oh, I think that seam has been used since that and before that, maybe.

The COURT.—In the manufacture of phonographic horns?

A. In the manufacture of phonographic horns, I think so. I [48—27] never kept any record of that kind of a seam.

Mr. ACKER.—Q. Can you describe to the jury, and likewise advise the Court other than by saying that is a seam, the manner in which the pieces of metal are united together longitudinally to form that seam?

A. That is not in pieces.

The COURT.—You spoke of pieces. You mean bringing the two edges together?

Mr. ACKER.—The longitudinal edges.

A. Your Honor, that is a straight edge, but the other horn edges are curved this way. This is straight. This is curved this way.

The COURT.—What horn are you talking about now?

Mr. ACKER.—The horn that you hold in your hand.

Q. I wish the jury to know how the edges of the metal constituting the body of the horn are united longitudinally, other than by simply a seam, as you say. A. Well, I don't—

The COURT.—He says that he is not an expert.

A. (Continuing.) I am not a tinsmith, and the

(Testimony of Christian Krabbe.)

only experience that I have is simply started to manufacture the horn. I never took any interest in that.

Mr. ACKER.—Q. Is there a rib on that horn?

A. Yes, there is a rib inside.

Q. What do you mean by the expression “rib”?

A. Where the joints is turned and the finishing off of the two ends, and they are turned together.

Q. Do you mean by “ribs” the metal which protrudes inside of the horn or that cylinder from the joining of the two edges together?

A. Yes, sir. [49—28]

Q. That protruding metal you consider to be a rib?

A. Not a rib, it is simply a finishing there.

Q. If that protruding portion was on the exterior, rather than the interior, would you consider it a rib?

A. No, I would not. You mean that piece that is there? Yes, I would consider that a kind of a rib.

Q. The metal which protrudes out, in your opinion, constitutes a rib?

The COURT.—What are you speaking of now, Mr. Acker?

A. I don't quite understand the question.

The COURT.—He means this longitudinal seam. Do you call that protuberance a rib?

A. Yes, that is finishing together. You can call it a rib or a finishing together.

Mr. ACKER.—Q. I am asking you whether that is a rib by reason of the fact that you were the owner of this patent, and a great deal depends upon what

(Testimony of Christian Krabbe.)

you class as being a rib. A great deal of the value of your testimony depends upon what you define as being a rib. I wish now to ascertain from you whether that metal which protrudes on the inside of the horn which is formed by the union of the longitudinal edges is considered in your opinion a rib?

A. That seems to be a rib.

Q. That is a rib then on the inside according to your understanding?

A. We don't put a rib on the inside. We put the rib on the outside.

Q. Supposing that protruding metal was on the exterior, rather than on the interior, would that in any way modify or change your testimony?

A. Yes, you mean putting the rib together? [50—29]

Q. Yes.

A. It would not change it in any way because it is only the joining of the seams.

Q. And if that metal protruded on the exterior, rather than on the interior, it would not, in your opinion, be a rib; is that correct?

A. I will say it will be the same thing as it is in there. It would not change my opinion.

The COURT.—He has answered that a number of times. He says it is a union or joint.

Mr. ACKER.—You will find that the whole question at issue depends upon the definition of the word "rib."

The COURT.—These have been referred to as strips of metal.

(Testimony of Christian Krabbe.)

A. That is what I understand, the pieces were bent up.

Mr. ACKER.—If this witness will state that he does not consider the protruding metal formed by the union of the longitudinal edges, whether on the inside or outside, to be a rib, I am satisfied on that point, but so far I have not got an expression from him. He has been dodging the point.

The COURT.—I do not think that is a correct statement. He has told you that he is not technically versed in the art of tinsmithing, and he calls that a rib or a joint.

Mr. ACKER.—I did not understand him to so state.

A. Yes, that is what I said.

Mr. ACKER.—And if he considers that a rib, that answers my purpose.

Q. What difference, if any, in your opinion, is there in the formation of the rib of the horn on exhibit No. 9 with that of exhibit No. 8?

A. That is the same as the other, only that is soldered and the other one is bent. The same thing only this is soldered together, and the other one, the joint is made so as to make it cheaper. [51—30]

Q. How is that rib formed?

A. By joining those two edges together.

Q. Are the sections of the horn of exhibit No. 9 united together in the same manner as the metal in the body portion of the horn, exhibit No. 8?

A. They are bent over. This is soldered together at the edges.

(Testimony of Christian Krabbe.)

Q. Now, you say they are soldered together?

A. Yes.

Q. Does that cause the metal to project upwardly from the exterior surface of the horn?

A. We could make that either way we wanted to. We could bend it over and put it inside if we wanted to.

Q. Read the question.

(The reporter read the question.)

A. You are asking me questions in the tinsmith line and I cannot answer them. I am not a tinsmith.

Q. You are familiar with the patent in suit?

A. I am familiar with the patent in suit. I am familiar with anything you would ask me, but I am not a tinsmith, and don't know anything about tinsmithing. If you ask me anything about the manufacture of these horns I will tell you.

Q. Are you familiar with the construction of the horn in suit?

A. I have seen that and watched them make it, and Neilsen showed me which was the easiest way to make it. I did not make them myself. I was in the electrical business and I did not stand there and watch them make the horns all the time. My store was here and the factory was three blocks further down. I spent my time in my electrical place. I went to the place whenever they called me there. That is all the experience I had with it.

Q. Are not the ribs appearing on the exterior of exhibit No. 9 [52—31] formed by first flanging

(Testimony of Christian Krabbe.)

the edge of the pieces at right angles to the body of the surface?

A. You turn the edges up and then put the pieces together.

Q. You turn the edge up at a right angle?

A. Yes.

Q. And then the two flanged edges are brought together? A. Yes. We turned them up.

The COURT.—Q. Do you regard it as a rib or as a seam?

A. A rib.

Q. What constitutes a rib?

A. It is both a seam and a rib.

Q. You call it a rib because it protrudes up here?

A. Yes.

Mr. ACKER.—Q. Isn't it a fact that that rib is formed by the flange on the edges, the longitudinal edges of each piece at a right angle to the body, and then bringing the two right angled flanges together?

A. Yes.

Q. Then those flanges are soldered together?

A. Yes.

Q. Are they soldered together in the horn, exhibit No. 8? A. No, sir.

Q. How are they?

A. They are just lapped over.

Q. Interlocked, are they not?

A. Lapped over, locked like—lapped over like a tin roof or anything is done.

Q. Isn't the seam on the horn, exhibit No. 8, what is known as the lock-seam joint?

(Testimony of Christian Krabbe.)

A. I tell you I don't know the difference between the lock-seam, or any other seam. I know how it looks. I don't know the name of it.

Q. Is it your understanding that any horn, consisting of a series of pieces united together is a horn constructed in accordance with the patent in suit?

A. A horn made of elongated straps and secured together at the edges. [53—32]

Q. Any horn so united, irrespective as to the form, the particular form of the joining, conforms to the horn of the patent in suit in your opinion?

A. That is what I understand, a horn for phonographic purposes, being large at one end and small at the other, put together by uniting the strips at the edges.

Q. All horns for phonographic purposes are larger at one end than the other?

A. They are not all made of straps like that put together in pieces. There is only one piece joined together in exhibit No. 8. These others are made of several pieces put together.

Q. Is it your understanding that no horn had ever been manufactured of more than one piece of metal?

A. I have never seen any horn being made like that. There may be such a horn made. A horn like this may have been made out of two pieces of scrap metal, and they may have put the metal together if they wanted to make it cheap in this shape.

The COURT.—You are referring to exhibit No. 8?

A. Yes.

The COURT.—I want to keep the record straight.

(Testimony of Christian Krabbe.)

When you say in this shape you are referring now to exhibit No. 9?

A. Yes, I have never seen it in that shape.

Mr. ACKER.—Q. How does the joint union of the Plaintiff's Exhibit, horn No. 10, compare with the joint union of exhibit No. 8?

A. They looked different from the outside but they are all joined together, that is all.

Q. Is the rib, what you term the rib on exhibit No. 8 the same form as the rib that appears in exhibit No. 10? [54—33]

A. You put it on the outside. The rib is inside here. Up here the rib is inside. If you take another horn you will see the ribs there.

Q. According to your testimony the rib of No. 10, the longitudinal ribs of No. 10, are the same as the horn No. 8, that appears on the inside, is that correct?

A. They ain't exactly the same. They are soldered together and these are pressed together.

Q. With that exception they are the same, in your opinion?

A. I don't know what to answer you about that. I don't know. These are soldered together by the edges, and these are pressed together.

Q. You have testified in direct examination that all of these horns are the same, and if you are able to testify that all of these horns are the same you ought to be able to tell me as to the construction of the rib of either horn that may be submitted to you.

The COURT.—Don't argue with the witness. Just ask him any questions that you see fit.

(Testimony of Christian Krabbe.)

Mr. ACKER.—Q. I ask the same question referring to the red horn introduced in evidence and marked Plaintiff's Exhibit No. 11. How does the joint union compare?

A. That is pressed together. That is not soldered; that is pressed. We made them both ways. We did not think it was material whether we made them one way or the other. We made them both ways. Mr. Neilsen made them both this way and the other way. He had machinery and he made them both ways.

Q. Is the joint union of the strips in the red, exhibit No. 11, the same as the joint union in the horn exhibit No. 8, excepting for the fact that the metal is upraised on the exterior of No. 11 and on the interior of exhibit No. 8? [55—34]

A. Yes, that is the same on the outside, and that is the same as this on the inside here.

Q. I will ask you the same question regarding Plaintiff's Exhibit No. 12, this blue and gold horn that has been introduced in evidence, How does the rib on exhibit No. 12 differ or conform to the rib on exhibit No. 8?

A. The same thing as the blue one, only that is hammered down, and this is standing up; that is all.

Q. In one case it is pressed down and in the other case it is upset? A. Yes.

Q. Is it by reason of the fact that exhibit No. 14, that the metal protrudes on the exterior at the joint union of the strips that enables you to state that it is a rib to the same extent as in the protruding rib of the blue horn?

(Testimony of Christian Krabbe.)

A. No, this rib is bent together. It is a rib but it is bent together. It is bent together, but it makes a rib the same way. That makes a rib and stiffens it.

The COURT.—Before you go on with this examination I want to hear the claims of this patent read.

Mr. ACKER.—I would like to read the entire patent at this time, and also if it is in order I would like to ask counsel on what claims he relies on infringement.

Mr. MILLER.—In order to expedite matters I pursued the course which I did. I did not offer this witness as an expert.

The COURT.—This witness is not an expert in the manufacture of these articles at all.

Mr. MILLER.—I wanted him to tell the extent of the facts leading up to this business. He is not an expert and he does not know anything about it at all. I did not ask him anything about it. When I get through with him I propose [56—35] to put on my experts who will then explain what the patent was. That is the reason I proceeded in the way that I did. If your Honor prefers to hear the claim read now, I am perfectly willing to read it.

The COURT.—This witness is being asked about things that he knows nothing about, and I want to know what the claims of the patent are.

Mr. MILLER.—There are three claims in this patent, and in regard to the first claim, I am perfectly free to say that I am somewhat in doubt as to the exact scope of that claim.

The COURT.—Which claim is that?

(Testimony of Christian Krabbe.)

Mr. MILLER.—Claim No. 1. I have studied it over a good deal and the more I study it over the more I am in doubt as to what is the real scope of that claim, and rather than introduce in a case matters of nice distinction, technical distinction, I have concluded that that claim would not give me much of an infringement in this case. I do not admit that it has not been infringed, but I say I am not relying on it in this case. I am in doubt as to it myself. If I am in doubt as to it myself I don't see how I can explain it to the Court. The claims we rely on are claims 2 and 3, and claim 2 reads as follows:

“A horn for phonographs and similar machines, the body portion of which is composed of longitudinally-arranged strips of metal provided at their edges with longitudinal outwardly directed flanges whereby said strips are connected and whereby the body portion of the horn is provided on the outside thereof with longitudinal-arranged ribs, said strips being tapered from one end of said horn to the other, substantially as shown and described.”

That claim is drawn specifically. [57—36]

Mr. ACKER.—Do you wish to argue at this time?

The COURT.—I want to understand what this is. I don't care what it is. The jury will be guided by what I tell them, I believe. I want to know what it is about so I can tell them when the time comes.

Mr. MILLER.—That claim is drawn specifically to the construction in which the seams are joined together by flanges such as are shown in the first exhibit that was introduced, Neilsen's horn. Your Honor

(Testimony of Christian Krabbe.)

will see from that that the horn is formed by making right angle flanges of two pieces of metal and joining those two right angled flanges together with solder. The nature of this claim is drawn strictly to that construction, but our theory is that the other construction is a mechanical equivalent of this one here, but I was required to draw the claim in the language of the drawing and specifications and that is the construction of it, and if those seamed edges are made by what is known as the lock seam, they would be a mechanical equivalent to that construction. That is my theory of that. Now, the third claim reads as follows:

“A horn for phonographs and similar instruments, said horn being larger at one end than at the other and tapered in the usual manner, said horn being composed of longitudinally arranged strips secured together at their edges and the outer side thereof at the points where said strips are secured together being provided with longitudinal ribs, substantially as shown and described.”

That claim is practically the same as claim No. 2, except that it does not use the specific expression “Outwardly directed flanges,” but it leaves the joiner of the two pieces of metal to be of any kind so long as it is of such a kind as to produce the longitudinal ribs on the outside. [58—37] The two claims are very nearly, or practically the same when it comes to the matter of construction. That is, that the strips must be joined together by a seam, or joined by some means as to produce on the outside

(Testimony of Christian Krabbe.)

longitudinal ribs and the specifications so provide.

The COURT.—What is your theory, and then I will understand the examination of these witnesses.

Mr. ACKER.—My theory of the case, and as to these claims, and my understanding of the proper construction to be given these claims, is drawn from the specifications and the drawings of the patent in suit taken together with the prior art. Claim No. 2, just read, calls for strips for the formation of a horn and those strips along the longitudinal edge shall be flanged outwardly at a right angle. The adjacent strips when brought together cause these angular flanges to abut. Now, whether those flanges are soldered together or how they are united, we cannot tell from the patent, but we are told by claim 2 that the strips shall be angularly flanged and that the adjacent strips shall be united; and that when they are united together, those flanges on the longitudinal edge of the strips form the ribs which are the basis of this patent. My theory is that to infringe claim 2 of the letters patent in suit you must construct the pieces of metal as defined in that claim and the rib must be of that character formed by first flanging outwardly the longitudinal edge of the metal and then bringing it together.

The COURT.—With the joint or the rib on the outside?

Mr. ACKER.—Yes. The metal which protrudes upon the formation of the lock joint.

The COURT.—My impression of this patent would be that the mere manner of forming that rib or joint

(Testimony of Christian Krabbe.)

is not essential to the patent at all; that the essence of this [59—38] patent is in the building of an instrument by strips of metal united together so as to make the whole, and that it rests in the form of the horn. The general form of the horn is constituted by strips which gives the horn this particular form and that is what they count upon.

Mr. ACKER.—I have given your Honor my understanding of claim 2, which I will support by the prior art. My understanding of claim 3—and Mr. Miller has very fairly stated that they are substantially the same—and I can see very little difference between the two, except in claim 2 it speaks of metal strips and in claim 3 that is absent. Like claim 2 it required the formation first of a joint union between the longitudinal edges of the metal constituting the horn, or the strips, and then the formation of a rib. My position is that as to claim 3 you must first find the horn constructed by a union of the longitudinal edges of the strips and then the formation of a seam.

The COURT.—With the respective ideas of counsel the jury will be better able to appreciate the questions that are asked of the witness.

Mr. ACKER.—Q. When do I understand you to state that Mr. Neilsen first applied to you regarding the horn?

A. Some time in April, 1904, or before April.

Q. Was the horn a patented horn at that time?

A. It was a patented horn, I think he had a patent applied for on the horn at that time. He did not tell me anything about his patent affair.

(Testimony of Christian Krabbe.)

Q. Did you ever have any horns manufactured after this other than those which were made by Mr. Neilsen?

A. After Neilsen went away, I told you he maybe wanted more [60—39] wages—he told me he had sick eyes and he went to Denmark. I had other men working for me making those horns.

Q. You had other men?

A. There were two or three men working. Neilsen was the head, he was the foreman of the shop.

Q. Did you have any horns manufactured by the Tea Tray Company?

A. No, sir. I went to the Tea Tray Company and asked them why they made them.

Q. You are not located in business in this city?

A. No, sir.

Q. You are in business in New York?

A. In Brooklyn.

Q. Are you connected in any manner or are you interested in the Searchlight Horn Company, the plaintiff?

A. Not in the Searchlight Horn Company. When I sold out to Mr. Locke—when I sold to the United States Horn Company and to Mr. Locke—I sold him a half interest and it was with the understanding that Mr. Locke should start a suit against the Tea Tray Company and Mr. Locke tried the suit—he had a lawyer in New York and it cost him a good deal of money and he never could get satisfaction from him, and Mr. Locke never finished the suit. When I sold out he promised me in consideration of

(Testimony of Christian Krabbe.)

that—when I sold out I never sold any damages, but my agreement was that I sold him all of my right, title and interest, but no damages previous to the time that I sold to him. When I sold to Mr. Locke, in return for that he promised me that when I sold to him I did not sell him any damages. He said he would bring suit against the other people and that he would give me ten per cent. That was the understanding that I had with him; [61—40] that I was to get ten per cent if he got anything. I have no agreement with him only verbally.

The COURT.—Q. You mean in regard to the damages?

A. Yes. He offered to give me the ten per cent when I sold out. That was a part of the conditions, that he would start suit against the Tea Tray Company. He promised me, but he said he couldn't afford it. He spent all he could stand.

Mr. ACKER.—Q. If there is any damages collected in the present suit you get ten per cent?

A. He promised me that he would give me ten per cent if there was anything came out of it; that I was entitled to, because I never sold my damages. The damages I never sold. After the Searchlight Company was incorporated then I mentioned the same thing, that I will not sell my damages.

The COURT.—Q. You would be interested to a certain extent as to any damages that might be recovered here?

A. I have only a verbal agreement. There were other people present, but I have not got that agreement in writing.

(Testimony of Christian Krabbe.)

Q. It was not in writing?

A. I never expected it to come up. I never expected to come out here. When the people came to me and asked me if the case was coming up in San Francisco I says, "Mr. Locke, I can't very well leave this business. I have got my farm and my business and troubles of my own." Mr. Locke said, "Will you go if I pay your expenses?" I said, "My expenses would not be enough. I am losing all of the time away from home and I cannot afford to go away from here." He said if I went that he would do what he agreed to do. I took his word for it.

Mr. MILLER.—I am perfectly willing to admit that he has an interest in the subject matter of the action. [62—41]

The COURT.—Under his statement he has an expectation of something.

Mr. MILLER.—That is perfectly true.

Mr. ACKER.—Q. Does the Searchlight Horn Company manufacture horns at the present time?

A. It is a big concern, but I was never interested in it. I never went in the Searchlight Horn Company. I sold my interest out before the Searchlight Horn Company was incorporated. It is a large concern and made lots of horns. They were driven out of business by the Edison and the Victor.

Q. It manufactured horns itself? A. Yes.

Q. They were not manufactured for them?

A. No, they manufactured them themselves. They had a large factory in Brooklyn.

Q. Do you know any other form of horn that was

(Testimony of Christian Krabbe.)

manufactured by the Searchlight Horn Company?

A. Yes, they made other horns. I can state to you how that came about. They made a horn like—I don't know whether I have one here or not. We had one of them. It was of a peculiar shape. Instead of being flat here it was bent here or made like this, only of a different shape.

Q. (Showing the witness a horn.) Is that the horn you are referring to now? A. That is the kind.

Q. *What* did the Searchlight Horn Company start to manufacture that horn?

A. I don't know when they started to manufacture. The papers will show.

The COURT.—You better have that horn marked for identification.

Mr. ACKER.—I will ask that the horn be marked at this time for identification. [63—42]

Mr. MILLER.—It is no part of the cross-examination.

The COURT.—That is a different thing. I am trying to keep the record so it will be intelligible to either myself or a court of review.

Mr. ACKER.—Q. Have you any idea when that horn was manufactured by the Searchlight Horn Company?

A. That was manufactured, I suppose, at the time they were sold, when the patent was sold.

Q. Can you state whether or not that horn was manufactured by it to any considerable extent.

A. They manufactured a whole lot of them. I so understood. They shipped a lot of them here to San

(Testimony of Christian Krabbe.)

Francisco and different other places.

Q. Does a horn of that character conform to the patent in suit?

Mr. MILLER.—I object to that question. I have not offered this witness as an expert.

The COURT.—I will sustain the objection.

Mr. ACKER.—We note an exception.

**Defendant's Exception No. 1.**

To which ruling of the Court the defendant by its counsel, duly excepted and hereby tenders this its bill of exceptions for the Court to sign and seal, and the Court does hereby sign and seal the same.

The COURT.—The horn that has just been exhibited to the witness and which has been testified to by him is known as what?

The CLERK.—Exhibit "Z" for identification.

Mr. ACKER.—Q. Were any of those horns of the character which you now hold in your hand manufactured by [64—43] the United States Horn Company?

A. No, sir, not that shape. Mr. Neilsen made a shape of horn like this. Mr. Locke before he bought me out came to see me about that—Mr. Locke came to buy me out, and I told him I could not afford to spend so much money in the manufacture, there wasn't any money in the business. He says we could not start to make any. All of these people are making them this way and the Victor is bending them that way, and I believe that we can bend them a little more and make a little bit different arrangements. He talked to me about that and he talked to

(Testimony of Christian Krabbe.)

me about being a good mechanic and he wanted me to be superintendent and make a big job. Mr. Locke showed me this horn made in pieces the same way. This was only a cheaper way to make them. I told him I could not afford to go into it, and he started out for himself.

Q. Do you know of any other horn that is put on the market by the Searchlight Horn Company?

Mr. MILLER.—I object to that as not cross-examination. The witness has nothing to do with the Searchlight Horn Company.

The COURT.—I will allow you to ask the question.

A. Yes, they manufactured this horn.

The COURT.—You mean Exhibit “Z” for identification? Did they manufacture a horn like that?

A. Yes, so I understood. I don’t know. I understand they have different patents for this thing. They have a patent on this.

Q. They have applied for a patent on this have they?

A. No, they got one, I believe, on this. They have made another horn which they call the folding horn. I think I see one standing there.

Mr. ACKER.—Q. This one (exhibiting a horn to the [65—44] witness)?

A. Yes, they manufacture that, I believe. That is the very same thing as the other one.

Mr. ACKER.—Let the horn the witness is now examining be marked for identification Exhibit “W.”

Q. Do I understand you to state that the horn that you now hold and that has been marked for identi-

(Testimony of Christian Krabbe.)

Exhibit "W" is the same as the other horns in the cases?

A. It is put together with straps secured together at the edges, the same as the other horn.

Q. In your opinion it is the same?

A. Yes, it is a folding horn. They got this design up and it is a different patent from that altogether. This can all be folded up to a little piece and put in a box. This horn was intended to be sent by express, so they discovered some way whereby they could fold the horn up. If you will let me take it apart I will show you. (The witness takes the horn apart.) It comes all together in a small way and makes a little package, a very little bundle. It saves expense to ship it that way. They all tried to follow the Neilsen patent.

Q. It is your understanding that the device which you hold in your hand, marked "W," is a horn patented as an improvement on the Neilsen horn in suit?

A. Well, a kind of an improvement, because it can be folded up.

Q. In your opinion that is covered by a subsequent patent to the Neilsen patent?

A. Well, I don't know, I have no interest in that and I don't know. I never read that patent. I don't know anything about it.

The COURT.—Q. You don't know of your own knowledge whether they got a patent for it or not?

A. No, I never seen the patent or read the patent.

[66—45]

Mr. ACKER.—Q. It has the wording "Patented

(Testimony of Christian Krabbe.)

1904, 1906, Searchlight Horn Company''?

A. Yes, I never looked at that. I never had any of them in my place at all.

Q. What is the feature of the horn marked for identification which you believe conformed to the Neilsen patent in suit?

Mr. MILLER.—That is a question of law, whether that conforms to the patent in suit or not.

The COURT.—He stated that it was formed by strips in the same way.

Mr. ACKER.—I did not understand him to say that. That is all I have to ask of this witness.

Mr. MILLER.—That is all.

**[Testimony of William H. Locke, Jr., for Plaintiff.]**

WILLIAM H. LOCKE, Jr., called, sworn and examined as a witness on behalf of the plaintiff.

Direct Examination.

Mr. MILLER.—Q. Where do you reside, Mr. Locke?

A. Mount Vernon, New York.

Q. Have you any relation to the Searchlight Horn Company? A. Yes, sir.

Q. What relationship? A. President.

Q. Did you have any relationship to the United States Horn Company? A. Yes.

Q. What was that? A. Treasurer.

Q. Do you know this man, Christian Krabbe, who has just testified? A. Yes.

Q. When did you first become acquainted with

(Testimony of William H. Locke, Jr.)

him? I don't mean the exact date, but about when?

A. I think it was Christmas of 1904. [67—46]

Q. Where was it that you met him?

A. Well, I was passing Mr. Grabbe's store and I saw a model of a boat in his window. I had two boys and I thought it would be a good Christmas present for one of them.

The COURT.—Never mind that.

Mr. MILLER.—Leave that out.

A. I went in there and priced the boat and met Mr. Grabbe. I had to wait for him a little while as he was attending to some other business, selling phonographs, I think. While I waited I saw one of these horns.

Q. What kind of horn do you refer to?

A. This flower horn. It was a new shape to me, never having owned a phonograph and I looked it over. When I got through with the boat business I talked about the horn and I understood that he owned the patent. That is, I am not positive at that time, but at any rate, we started our acquaintance, that visit to his store.

Q. At that time had you seen phonograph horns on the market of any kind?

A. Only never having owned a phonograph I had seen horns, but they were not attracted to my particular attention.

Q. What kind of horns were on the market at that time?

A. I had never seen any other horn except this old-fashioned horn, I will call it the old fashioned horn.

(Testimony of William H. Locke, Jr.)

Q. What is that marked?

The CLERK.—That is marked exhibit No. 8.

Mr. MILLER.—Q. What is the name generally given to that horn by the trade?

A. B and G horn. I have always heard it called that.

Q. Those letters stand for black and gold? [68—47] A. That is my impression.

Q. Did you afterwards then make a deal with Mr. Krabbe in regard to this flower horn which you saw there? A. Yes, sir.

Q. And was the United States Horn Company afterwards incorporated?

A. Yes, I bought a one-half interest from him and we incorporated.

Q. Did the United States Horn Company make and sell any of these horns? A. Yes.

Q. What kind of horns did they make?

A. This flower horn.

Q. Just pick out some of the flower horns you refer to as having been made by the United States Horn Company. A. This is one of the horns.

The COURT.—Refer to the exhibit number.

Mr. MILLER.—Q. Give the number of the exhibit.

A. Exhibit 12 and exhibit 10.

Q. At that time will you please state how the business of horn making was carried on, the business in dealing in horns as compared with the phonographs themselves?

A. At that time there were three large manufacturers of these horns, B and G, and when this Neil-

(Testimony of William H. Locke, Jr.)

sen horn, so-called, exhibit 12, came on the market, it created a furore for flower horns. The demand was much greater than the supply and these people were forced—

The COURT.—Q. Which people are you referring to?

A. I am talking about the manufacturers of this B and G horn. They started in to make these other horns to fill the demand.

Mr. MILLER.—Q. And business in the B and G horns stopped? [69—48]

A. Business in the B and G horns stopped and people would not buy them any more.

Q. What horns then took their place?

A. The so-called flower horn, this exhibit No. 12.

Q. Now, who were making the flower horns?

A. Well, up to the time that I bought Mr. Krabbe's interest I understood that Neilsen and one or two little people, as Mr. Krabbe expressed it, infringers on Neilsen were in the business, but the other manufacturers were experimenting in making horns.

The COURT.—Q. The manufacturers of the B and G horn?

A. The manufacturers of the B and G horn.

Mr. MILLER.—Q. I want to know who were making these flower horns which you say captured the market. Who made them, what class of people?

A. Mr. Neilsen first.

Q. Yes and then afterwards who made them?

A. Then the United States Horn Company and these other manufacturers, and since that time per-

(Testimony of William H. Locke, Jr.)

haps a dozen other manufacturers all over the United States have been manufacturing them in material quantities. The original B and G manufacturers were large manufacturers and they went into it in a large way.

Mr. MILLER.—Q. Who were the original B and G manufacturers?

A. The Tea Tray Company of New Jersey, the Standard Metal Company of New Jersey and the Hawthorne-Shieble Company of New Jersey.

Q. At that time were the horns a part of the equipment of the talking machines?

A. No, sir, they were not. [70—49]

Q. Just explain how the business was carried on as between the Phonograph Companies?

A. They were separate businesses. The talking machine manufacturers made the talking machines and the horn manufacturers made the horns. They both sold to jobbers. The jobbers were distributors of both of these products to the dealers. Each jobber would supply several dealers. They were the agent of the manufacturers, you might say.

Q. Later on then state what, if any, change was made in regard to the equipment of the machines with horns.

A. Well, the equipment of horns with the talking machines was always a little annoyance and the talking machine manufacturers had a very strong license agreement for the handling of their goods. Under this license agreement they prohibited trading stamps, bonuses and all kinds of methods whereby

(Testimony of William H. Locke, Jr.)

one dealer would make special inducements to get business away from his competitor. The horn was always used more or less as a special inducement. One man would sell a horn for \$5.00, another for \$4.50 and another for \$2.50 and another man might do business at cost so as to get the profit on the talking machine. They were used as leaders, to use a trade expression, to bring people in. After awhile the manufacturers of the talking machines made the horn a part of their equipment and arbitrarily changed trade conditions. In other words, you could not buy a talking machine without buying their horn at their price that they sold it under the license. That made the horn business as a separate business unprofitable. The manufacturers that made horns for the manufacturers of the talking machine concerns did a large volume of business. The people that were in the business of making horns that had no connection with the talking machine [71—50] manufacturers were practically put out of business. There was not business enough to make any profit.

Q. After the Searchlight Horn Company was formed, state what that company did in the way of selling horns. A. What it did?

Q. Yes, what it did in the way of selling any horns?

A. It did quite a business. We sold about 35,000 horns.

The COURT.—Q. You manufactured that many horns.

A. Manufactured and sold that many horns.

(Testimony of William H. Locke, Jr.)

Mr. MILLER.—Q. Were any sold on the Pacific Coast?     A. Yes.

Q. To whom?

A. Peter Bacigalupi, Sherman Clay & Company and a concern at Portland and one in Los Angeles. I have forgotten the names. We practically sold most of the jobbers in the United States.

Q. Did the Searchlight Horn Company afterwards cease to actually manufacture the horns?

A. Yes.

Q. Just tell what they did in that regard and when it was.

A. A little while after the Searchlight Horn Company began to manufacture, I called on my competitors, the Tea Tray Company and the Standard Metal Company and the Hawthorne-Shieble Company, to see if we could not get together. The business was running along unprofitable lines. Little manufacturers were starting up all over the country all the time and the business was unstable. There was a little movement on foot by the talking machine manufacturers to manufacture their own horns. As a matter of self-preservation I went to these people and talked to them on the basis of getting together and forming one concern to manufacture horns, so as to give the same stability to the market that the talking machine companies got under their license system, but I was [72—51] unsuccessful in the movement. I went to the manufacturers, and in that way that folding horn was made. I spent several thousand dollars in dies and I went to the manufac-

(Testimony of William H. Locke, Jr.)

turers and showed them that by the use of that horn they could ship the talking machines and the horn in one package without rehandling from the manufacturer to the consumer and that there would be a saving of probably seventy-five cents a horn in the rehandling besides the goods would reach the consumer in first-class condition without being scratched. Under the old process the horns were nested in a crate, twenty-five horns in a crate, and sent to the jobbers. The talking machine would be sent from the talking machine manufacturers and if the dealer wanted two or three machines those horns would be reboxed and rehandled and then sent with the talking machine by express, and in a good many cases would reach the dealer in bad condition. My efforts with the talking machine manufacturers were unsuccessful. They liked the horn and they liked the proposition, but one concern was in a hurry and I could not get my dies out fast enough. The other concern thought well of it, but were a little conservative, so I never made that connection. In the meanwhile the manufacturers had adopted a horn and I found the business unprofitable, so I made an arrangement with the Standard Metal Company of Newark, New Jersey, to take my machinery and fill whatever demands there were for those folding horns and pay me a royalty. I went out of business as a manufacturer.

Q. About what time was that?

A. That was in May, 1908. I moved my machinery to Newark.

(Testimony of William H. Locke, Jr.)

Q. The Searchlight Horn Company turned over its machinery to the Standard Metal Manufacturing Company and went out of [73—52] the actual manufacture of these horns and turned it over to that Company? A. Yes.

Q. You stated a moment ago that the Standard Metal Manufacturing Company was to pay to the Searchlight Company a royalty on horns?

A. Yes.

Q. Please state what that royalty was?

A. One dollar on the 19-inch and three dollars and thirty cents on the 23 inch. I better explain that. Our price to the trade on the 19-inch horn is two dollars.

Q. There are two sizes of horns, the 19-inch and the 23-inch?

The COURT.—That is the first we have heard of that.

Mr. MILLER.—I was going to ask the witness to explain it. He seems to be a little backward about explaining things.

Q. I show you a horn now bearing the Victor Talking Machine trademark, and I ask you what size of horn that is?

A. I believe that is the 19-inch, but I could tell by my own horn better.

Q. Look at the other Victor horn which is in evidence here, which is a little larger, and then state what size that is?

A. I believe that is the 23-inch.

Mr. MILLER.—I offer this Victor Horn, called

(Testimony of William H. Locke, Jr.)

the 19-inch horn, in evidence, and ask that that be marked Plaintiff's Exhibit No. 15 for the purpose of comparison.

A. The Standard Metal Manufacturing Company manufactured the two dollar horn, the 19-inch horn, for one dollar, and we divided that, we divided the difference, fifty cents.

Q. You made fifty cents on the 19-inch horn?  
[74—53]

A. Yes, and two dollars and fifty cents on the 23-inch horn, and they charged us one dollar and twenty cents, and we divided the one dollar and thirty cents, so we got sixty-five cents.

Q. Was the Standard Metal Manufacturing Company supplying the entire market?      A. Yes, sir.

Q. The Searchlight Company, as I understand you, then ceased the actual manufacture?      A. Yes.

Q. And they have not manufactured any since?

A. No, sir.

Q. The whole matter has been turned over to the Standard Metal Manufacturing Company under the terms which you have stated?      A. Yes.

Q. Just give us some idea of the size of the Standard Metal Manufacturing Company and its ability to supply the market.

A. Well, the Standard Metal Manufacturing Company to-day is the largest manufacturer of talking machine horns in the country. It manufactures the bulk of the horns for the Edison Phonograph Company and the Victor Talking Machine Company.

Q. Where is its place of business located?

(Testimony of William H. Locke, Jr.)

A. On Chestnut and Jefferson Streets, Newark, New Jersey.

Q. When the United States Horn Company and the Searchlight Horn Company were manufacturing and selling horns as you have stated, state whether or not they marked them with the patent mark of the Neilson patent? A. Yes, every one.

Q. Can you recollect about how many horns were sent to Sherman Clay & Company by the Searchlight Horn Company? Have you any recollection on that subject as to the number?

A. My impression is that we shipped them about 500 of the folding horns. [75—54]

Q. How about the horns that were sent to Mr. Bacigalupi of this city?

A. I have the impression that we sold him a thousand, but I do not believe they were folding horns.

Mr. MILLER.—You may take the witness.

Cross-examination.

Mr. ACKER.—Q. I understood you to state, Mr. Locke, that you only sold to Sherman Clay & Company what is known as the folding horn?

A. Yes.

Q. By the folding horn have you reference to the horn which is marked for identification exhibit "W." the horn that I now show you?

A. That kind of a horn, yes.

Q. About how many of these horns did your company place on the market?

A. Three or four thousand.

Q. You are having your goods marketed, as I

(Testimony of William H. Locke, Jr.)

understand you, by the Standard Metal Manufacturing Company?     A. Yes.

Q. And that is a company in Newark, New Jersey?     A. Yes.

Q. Have you a place of business here on the Coast, Mr. Locke?     A. No, sir.

Q. You are not manufacturing at all?

A. No, sir.

Q. Has the Searchlight Horn Company an office?

A. Yes, sir; in Brooklyn, New York.

Q. And the Standard Metal Manufacturing Company is in Newark, New Jersey?     A. Yes.

Q. And the Tea Tray Company is in Newark, New Jersey?     A. Yes.

Q. The Tea Tray Company, as I understand you, is one of the manufacturers of horns for the Victor Talking Machine Company?

A. I understand that most of the horns are manufactured by [76—55] the Standard Metal Manufacturing Company but the Tea Tray Company may make some of their horns.

Q. For the Victor Talking Machine Company.

A. Yes.

Q. The Standard Metal Company likewise manufactures some of them?

A. Oh, yes; those two concerns are the largest manufacturers of those horns except those that are manufactured by the Columbia Phonograph Company.

Q. Do you know which company supplies horns to Sherman, Clay & Company?

(Testimony of William H. Locke, Jr.)

A. The Searchlight Horn Company.

Q. Supplies them to Sherman, Clay & Company?

A. Previous to the time we ceased manufacturing them.

Q. Do you know what company supplies horns to Sherman, Clay & Company, that is, the horn alleged to be an infringement upon the patent in suit?

A. I could not say, the Talking Machine Company.

Q. The Talking Machine Company?

A. I suppose the Victor.

Q. The Tea Tray Manufacturing Company manufactures horns for the Victor Talking Machine Company?

A. Both the Tea Tray Company and the Standard Metal Manufacturing Company, I believe.

Q. Do you know that the Standard Metal Company manufactures horns for the Victor Talking Machine Company?

A. That is my impression. I don't know actually anything about it. They did and I have no doubt that they do to-day.

Q. It is your understanding that horns that have been placed on the market by Sherman, Clay & Company are procured from the Victor Talking Machine Company with the talking machines? A. Yes.

The COURT.—The manufacturers of the horn do not supply them direct to the dealers like Sherman, Clay & Company, but to the talking machine companies? A. Yes. [77—56]

Mr. ACKER.—Q. The manufacturer supplies the talking machine company and that company in turn

(Testimony of William H. Locke, Jr.)

supplies the horn to the dealer?     A. Yes.

Q. For what length of time have you known that the Victor Talking Machine Company was supplying these horns to the talking machine dealers?

A. Four or five years.

Q. The Tea Tray Company and the Victor Talking Machine Company are both corporations located and doing business in Newark, New Jersey, are they not; and the Standard Metal Company is also located in Newark, New Jersey?

A. Will you read that question, please?

(The reporter read the question.)

A. The Victor Talking Machine Company is in Camden and the other two companies are in Newark.

Q. How is it that your company elected to come to the Pacific Coast to bring a suit against Sherman, Clay & Company for infringement when the manufacturer of the alleged infringement is located in Newark, New Jersey, which is the home of your own company?     A. Well, Mr. Miller is the attorney.

Q. Mr. Miller was an attorney who had an office in New York at that time that you took up the question of infringement with him?

A. Well, he preferred to bring the case in San Francisco.

Q. He had an office in New York?

A. Yes, I believe so. I met him in New York through a mutual friend.

Q. You have never brought a suit against the Tea Tray Company or the Standard Metal Company?

A. No, sir; not yet.

(Testimony of William H. Locke, Jr.)

Q. They are the parties that are doing the actual manufacturing of these horns?

A. I suppose so. Of course I don't know. They manufacture them for the talking machine companies. [78—57]

Q. For the talking machine companies?

A. Yes.

Q. And that has been known to you for the past five years?

A. It is not five years since the talking machine companies made the horn a part of their equipment.

Q. You knew at the time of bringing this suit that on all of the machines that were sold to Sherman, Clay & Company that the horns formed a part of its equipment and that they worked under the license agreement which you explained on your direct examination? A. Yes.

Q. And that Sherman, Clay & Company were not manufacturers of the horns, that is correct?

A. That is right, sir.

Q. And your company ceased to manufacture these horns when you turned your rights over to the Standard Metal Company? A. Yes.

Q. And your company has not manufactured any since? A. No, sir.

Q. Or made any efforts to manufacture other than those manufactured by the Metal Company?

A. No, sir.

Q. The Standard Metal Company, as I understand from your testimony, manufactures horns for the Victor Talking Machine Company?

(Testimony of William H. Locke, Jr.)

A. As far as I know, sir. I am not the Standard Metal Manufacturing Company.

Q. As far as your knowledge goes?

A. As far as my knowledge goes, yes.

The COURT.—Q. At the time of turning the business of manufacturing these horns over to the Standard Metal Company, you still retained your interest in the patent? A. Yes.

Q. The Searchlight Horn Company did?

A. Yes.

Mr. ACKER.—Q. Is the horn which has been introduced in evidence marked for identification “Z” the product of the Searchlight Horn Company?

A. Yes. [79—58]

Q. I notice in the horn introduced as exhibit marked for identification “W” that the same was patented October, 1904. What patent does that refer to, Mr. Locke?

A. You will have to ask Mr. Miller. I don’t carry those patents in my head.

Mr. MILLER.—That is the date of the Neilsen Patent.

Mr. ACKER.—Q. That is the patent in suit?

A. Yes.

The COURT.—It is manufactured under this same patent? A. Yes.

Mr. MILLER.—October 4, 1904, is the date of that patent.

Mr. ACKER.—It is also marked January, 1906. Patented 1906 refers to the reissue of the patent, doesn’t it, Mr. Locke?

(Testimony of William H. Locke, Jr.)

A. You will have to refer to Mr. Miller again.

Q. Don't you know the reason for placing the marks on the productions of your company?

A. I did that under advice of my counsel.

Q. Isn't it a fact that the patent stamp 1906 refers to the reissue of the patent, the same being the reissue of the Villy patent?

A. You will have to ask Mr. Miller. I don't carry those things in my head.

Mr. ACKER.—Isn't that a fact?

Mr. MILLER.—I don't see what that has got to do with the case. However, that applies to the Villy reissue of the patent, the folding feature.

Mr. ACKER.—Q. Now, the Villy patent, the original patent which was surrendered for the reissue, does not appear on the horn at all. [80—59]

Mr. MILLER.—I will object to that question as irrelevant, incompetent and immaterial.

The WITNESS.—I don't feel competent to answer that question.

The COURT.—What is the materiality of it?

Mr. ACKER.—I want to know whether the patent mark of 1906 applies to the Villy patent of 1903.

The COURT.—The Villy patent of 1903 has not been mentioned here so far.

Mr. MILLER.—1906 refers to the Villy patent.

Mr. ACKER.—That is all I have to ask of the witness.

**[Testimony of Alfred A. Reed, for Plaintiff.]**

Testimony of ALFRED A. REED, called, sworn and examined as a witness on behalf of plaintiff.

Direct Examination.

Mr. MILLER.—Q. What is your employment?

A. City salesman for Sherman, Clay & Company.

Q. What department have you charge of?

A. Small goods and talking machine department, small musical machines.

Q. What talking machine does Sherman, Clay & Company handle?

A. It handles nothing but the Victor product.

Q. Please look at the two horns which have been put in evidence here, which are now before you, one being marked Exhibit No. 15 and the other Plaintiff's Exhibit No. 14, and state whether or not Sherman, Clay & Company have sold any horns of that kind?

A. They come as equipment with the machines.

Q. You sell the machines and the horns together?

A. Yes. [81—60]

Q. Both sizes, I mean?

A. Yes, with different priced machines.

Q. And they have done so for about how long?

A. Well, I don't know exactly, but ever since the product has been on the market we have handled it.

Q. How long have you been there?

A. Eighteen years.

Q. They were selling these machines prior to the commencement of this suit in 1911, were they not?

A. Yes, sir.

Q. Have you looked over the books to see how

(Testimony of Alfred A. Reed.)

many horns of this make or kind were sold by Sherman, Clay & Company?

A. No, sir; that is not my department at all. I do not keep any statistics at all.

Q. Has the company sold any of these horns separately from the phonograph itself?

A. They come as a part of the equipment.

Q. I understand that, but sometimes do not people come in there who have a phonograph and buy a horn to replace a damaged one or a broken one or a worn out one, or something of that kind?

A. Yes, that has been done.

Q. You have sold those horns separately, that is, Sherman, Clay & Company have sometimes sold them separately from the machine? A. Yes.

Mr. MILLER.—That is all.

Mr. ACKER.—That is all.

**[Testimony of Andrew G. McCarthy, for Plaintiff.]**

Testimony of ANDREW G. McCARTHY, called, sworn and examined as a witness on behalf of plaintiff.

Direct Examination.

Mr. MILLER.—Q. You are employed by Sherman, Clay & Company? A. Yes, sir. [82—61]

Q. What is your position with that company?

A. I am one of the managing directors of the concern.

Q. What department have you charge of?

A. I am the treasurer of the concern and interested in all of the departments, but I pay particular atten-

(Testimony of Andrew G. McCarthy.)

tion to the talking machine and small instrument department.

Q. Have you looked over the books or records of Sherman, Clay & Company to find out for me as requested the number of horns sold by Sherman, Clay & Company during the last six years?

A. I have.

Q. Look at those two exhibits before you, 14 and 15, and state if they represent the kind of horns that Sherman, Clay & Company have sold during the last six years?     A. Yes, sir.

Q. You only sell the Victor Talking Machine, I understand?     A. Yes.

Q. And the horns that go with the Victor machine?

A. Yes, but for your information I will state that we sell very few machines with horns nowadays.

Q. I am not asking you about that. I know that there is a hornless machine on the market. That is a different proposition and I have nothing to do with that. Prior to the commencement of this suit, which was in 1911, about April or May, I think, of 1911, for six years before that; can you give us some idea about the number of horns that was sold?

A. It amounts to approximately 7456.

Q. Now, does that mean that many machines with horns attached?

A. And extra ones also. That is, horns of this type.

Mr. ACKER.—The Victor Horn?     A. Yes.

Mr. MILLER.—What do you mean by saying horns of this type?

(Testimony of Andrew G. McCarthy.)

A. Because we have sold many other horns not of that type. [83—62]

Q. What other horns?

A. We have sold the flat horn produced by the Searchlight people and we have sold wooden horns and fibre horns.

Q. You did not sell any horns except this 7456 which were made of metal strips secured together by some attachment, and which have been referred to here as ribs?

A. You call them longitudinal strips. I don't recognize them as ribs.

Q. It is immaterial what you call them. I am trying to identify the horn. Horns of that kind you say you have sold 7456.

The COURT.—The type represented by exhibits 14 and 15?

Mr. MILLER.—Q. Did you sell any of those horns separate from the machines. A. Yes.

Q. And they were included in this total amount?

A. Yes.

Mr. MILLER.—That is all.

Mr. ACKER.—That is all.

**[Testimony of Baldwin Vale, for Plaintiff.]**

Testimony of BALDWIN VALE, called, sworn and examined as a witness on behalf of plaintiff.

Direct Examination.

Mr. MILLER.—Q. What is your business or occupation and how long have you been engaged in it?

A. I am a patent solicitor and have been engaged in that for seventeen years.

(Testimony of Baldwin Vale.)

Q. Please state what experience you have had in that line, also in the actual mechanical line that would tend to qualify you as an expert in mechanical matters?

A. Since the fire in San Francisco six years ago I have run a plant in [84—63] Stockton for the manufacture of agricultural implements and general repair work such as we would pick up in the town. Previous to becoming a patent solicitor I was an electrician.

Q. Where were you engaged as an electrician?

A. In San Francisco.

Q. In what place?

A. The Edison Light & Power Company and the Western Light and Power Company and John McKlein's.

Q. You have then become acquainted with mechanical matters?     A. Yes.

Q. What experience have you had with regard to soliciting patents?

A. I have been obtaining patents for inventors during those 17 years.

Q. Now, just explain very briefly to the jury the process you have to go through in applying for a patent for an invention?

A. You have to thoroughly understand the inventor's idea, what part of the invention that idea is, and then you have to put it in such shape in accordance with the rules of the patent office that it will pass muster there, and when there is an anticipation of that particular invention you have to be able

(Testimony of Baldwin Vale.)

to amend the application so as to avoid the anticipation, so that he will get the benefit of all objectionable features that were left by what they call the state of the art which existed at the time he filed.

Q. Do you understand the Neilsen patent which is in controversy here?      A. Yes.

Q. I will hand you a copy of the patent and ask you to please explain to the jury the mechanical construction of the horn or device which you there find shown. Just take it up and explain the mechanical construction of that thing that is delineated in that patent, in the drawings, and [85—64] described in the specifications and in doing so you can refer to any of the exhibits that are before you here for the purpose of illustration.

A. The Neilsen patent seems to cover—

Q. I don't want you to tell the jury what the patent covers. I want you to describe to the jury the mechanical construction of the horn which you find in that patent.

The COURT.—Just the mechanical construction, leave the interpretation of the patent and what it covers, until you are asked about it.

A. The horn constructed in accordance with this patent would consist of a multiplicity of metal strips joined longitudinally on the edges by a seam, and this seam would form a rib on the outside of the horn, and the horn would have a bell shape, and it would gradually taper outwardly with a more abrupt curve and taper near the large end, so that horn constructed according to this patent would be made up of strips—

(Testimony of Baldwin Vale.)

Mr. MILLER.—Q. I don't want you to state how the horn would be constructed according to the patent. That is not a question for you to determine. That is a question for the Court to determine. I want you to explain to the jury the mechanical structure which you find there and show how it is formed and made.

The COURT.—Leave the patent out of consideration entirely.

Mr. MILLER.—Look at the drawings on the patent and describe them to the jury. This patent has not been read to the jury. Describe to them what you find there delineated.

A. Does not my description of a multiplicity of strips joined at their longitudinal edges by a seam cover it?

Q. That part of it is plain enough. Go right on and state [86—65] how you find them joined and the other mechanical construction that you find there?

A. The horn is composed of a multiplicity of metal strips joined at their longitudinal edges by a seam, the seam forming a rib on the outside of the horn. At the smaller end of the horn, this bell shaped portion I have just described is joined to a tubular portion tapering to a smaller tube so that it can be attached to the talking machine, in a manner not disclosed here.

Q. How are the metal strips referred to by you designated in the patent there? A. As B2.

Q. How many of those strips do you find shown in the figure of the drawings, figures 2 and 3, that are

(Testimony of Baldwin Vale.)

shown there?     A. 12.

Q. Where those strips are joined together, how are they joined?

A. They are joined by a flange turned up at the longitudinal edges of the strips and there is a flange apparently butted together and soldered.

Q. Have you any pieces of tin here by which you can illustrate the formation of those joints?

A. Yes, I have. (Produces some pieces of tin.) These metal strips after the flanges are turned up at each edge are laid together in the form—

Q. Now, just one moment. I just want to go ahead by piecemeal. Now, in these strips which you have here the flanges are turned up ready to be joined to the next piece, is that it?     A. Yes.

Q. That is the way it is shown in the patent, is it?

A. Yes.

Q. And this second piece that you have offered here is just a duplicate of the other one?

A. A duplicate of the first one.

Mr. MILLER.—I offer those in evidence and ask that they be marked Plaintiff's Exhibit 16. [87—66]

The CLERK.—Do you want them marked as one exhibit or separate exhibits?

Mr. MILLER.—Mark them as separate exhibits.

The CLERK.—I will mark them Plaintiff's Exhibits 16 and 17.

Mr. MILLER.—Q. How do you find the edges of these strips shaped from the small end to the long end?

(Testimony of Baldwin Vale.)

A. They are shaped on a curve, curved outwardly from the smaller end to the larger end.

Q. How do you find the strips shaped in the flat from the small to the outer end?

A. It is also curved on the plane.

Q. Explain to the jury if you were going to build one of these Neilsen horns as shown in the drawings of this patent how you would join those two strips together?

A. Having got them substantially in this shape they would be laid together on the flanges here and joined by solder, forming a segment of the horn until the horn was completed.

Q. I call your attention to the fact that if you simply placed these strips together this way the edges will not be parallel, but when you produce the finished horn they seem to have become parallel in some way or other. Explain that to the jury.

A. To put the bell shape on the completed horn it is necessary to flex the metal outward. In flexing the metal outwardly you get a curve from the plane, and this seam then on the straight line.

Q. And after they are put together?

A. They are parallel with the axis of the horn.

Q. So that they appear just like they are in Plaintiff's Exhibit No. 9?

A. Yes, exactly. [88—67]

The COURT.—The seam is on a straight line parallel with the axis of the horn? A. Yes.

Q. Perpendicularly? A. Yes.

Mr. MILLER.—Q. When you put two strips to-

(Testimony of Baldwin Vale.)

gether that way what effect does that have on the shape of the completed article after they are put together?

A. The completed article is given a bell shape more abruptly curving near the large end.

Q. Like this horn, exhibit No. 9?

A. Exhibit No. 9, yes.

Q. How long have you known in the metal art the method of joining two pieces of tin together by means of a right angle flange seam which is shown on these two strips?

A. Practically since I was old enough to discriminate.

Q. Have you any other pieces of metal here by which we can illustrate this idea?

A. Yes (exhibiting two pieces of metal).

Q. These are somewhat different from the two which you had before? A. Yes.

Q. If you were to put a flange on these two and join them together what kind of a shape would you have in the completed article?

A. It would not be possible to make other than an angular horn or cone out of them because it would not be possible to get the bell shape.

Q. It would be polygonal?

A. Yes, it would not be possible to get more than a right angle.

Q. But when you join them in other way as shown by the other two pieces of metal then you get a bell shape? A. Yes.

The COURT.—What produces that difference is

(Testimony of Baldwin Vale.)

the way the metal is cut?

A. Yes. You will notice that to get the bell shape the ends diverge.

Mr. MILLER.—Q. The Neilsen horn is constructed [89—68] according to the first method and not according to the second method?

A. According to 16 and 17; yes, sir.

The COURT.—Those strips are 16 and 17?

A. Yes, with the curved edges.

Mr. MILLER.—Q. Do you know of any other method in the tin or sheet metal art of joining two pieces together other than by a right angled flange seam?

A. Oh, yes; there are various methods.

Q. Mention those methods.

A. The lock seam, the double lock seam, the lap, the flat lap and the overlap and the butt seam, just as I have described.

Q. Then the angular or flange seam that you refer to you call the butt seam or flange seam? A. Yes.

Q. Explain to the jury what the lock seam is that you have just referred to?

A. That is where the metal is bent back upon itself and then the two are locked together in any manner.

Q. Have you two pieces of tin here showing how that is formed?

A. Yes. (The witness produces two pieces of tin.)

Q. Now, just explain to the jury what is formed on the edges?

A. The proceeding is just exactly the same as it is in 16 and 17, except that one flange is made longer

(Testimony of Baldwin Vale.)

than the other and bent back upon itself. They are both outwardly from the plane of the strip, and the longer one is bent back.

The COURT.—Q. And when joined together that makes the lock seam?

A. Yes.

Mr. MILLER.—Q. How would you join them together to make the lock seam?

A. You would take the upstanding flange and then the overturned flange, that is the flange that is turned back upon itself. The first thing that would be done to secure this end would be by bending that over and [90—69] then the whole seam is simply bent over on itself, one locks within the other.

The COURT.—And those strips are deflected sufficiently to get that curve? A. Yes.

Mr. MILLER.—Q. And then it would have the same curve formed as the other when you bring them together?

A. Yes, exactly.

Mr. MILLER.—I offer those two in evidence. (They were marked Plaintiff's Exhibits 18 and 19.)

The COURT.—We will take a recess now until tomorrow morning.

Wednesday, October 2, 1912.

BALDWIN VALE, called for further direct examination.

Mr. MILLER.—Q. Referring to this exhibit 18 and also to exhibit 19, which is a duplicate, please state the fact regarding the making of this exhibit. First I will ask you, where was this exhibit made?

(Testimony of Baldwin Vale.)

A. In San Francisco.

Q. At what place?

A. Delano Brothers at No. 70 Spear Street.

Q. What is their business?

A. They are tinsmiths and make a specialty of sheet metal repairs, I think, on steamships and such as that.

Q. Did you have this exhibit made?      A. I did.

Q. What direction did you give the workman to make?

A. I simply gave him a paper pattern covering one of these strips for a horn and told him to proceed and make a lock [91—70] seam on the edges and then before completing it told him to stop.

Q. Did you tell him how to make the lock seam?

A. I did not.

Q. It was in pursuance of your instructions then that he made this piece of metal?      A. He did.

Q. He made the two of them?      A. Yes.

Q. What is this intended to represent in its present shape?

A. This is intended to represent one of the assembled strips of a horn.

Q. It is not assembled yet?

The COURT.—He says one of the assembled strips.

Mr. MILLER.—Q. In assembling them together, then, what is the process?

A. The process of setting the upstanding edge within the upstanding down folded edge of the next

(Testimony of Baldwin Vale.)

adjoining strip and then beating them over in the usual manner.

The COURT.—That makes a lock seam?

A. A lock seam.

Mr. ACKER.—A lock joint seam.

Mr. MILLER.—Q. Now, I hand you another tin model and ask you to state what that is.

A. That is composed of three strips, similar to strip exhibit 18, two strips being joined and the third strip being partially joined to the other two.

Q. What is the object of leaving it in that way?

A. To show how the process of forming the seam was brought about.

The COURT.—Q. What is the seam that unites those strips? A. It is the lock seam. [92—71]

Mr. MILLER.—Q. So that represents, as I understand it, the completed lock seam that was started to be made by the two exhibits 18 and 19? A. Yes.

Q. And that is the way it would look when it was finished? A. Yes.

Q. You have left part of it undone so as to show the process of manufacturing? A. Yes.

Mr. MILLER.—We offer that in evidence and ask that it be marked Plaintiff's Exhibit No. 20.

Q. How long have you known in the tinsmith art the making of lock seams in the way illustrated by this exhibit?

A. As I stated yesterday, ever since I was old enough to recognize a seam at all, because it is in common use in stove pipes and tin cans and in kitchen utensils, something that is before one nearly

(Testimony of Baldwin Vale.)

every day of their lives in some form.

Q. I call your attention to Plaintiff's Exhibit No. 9 and ask you to look on the outside of the horn in referring to those ribs, and I will ask you what is the function of those ribs?

A. The primary function is to join the strips and the secondary function would have to do with the performance of the horn in amplifying sound.

Q. Explain that to the jury.

A. The disposition of metal is to set up a vibration of its own, and that would seriously interfere with any created sound, or propagated sound, that was passing from the horn. To minimize that effect of vibration or tintinnabulation and at the same time to preserve the conductivity of the metal, the inventor found that by stiffening these ribs he accomplished that. In other words, by tying the edges he prevented the vibration which those strips as individuals created, by uniting them as a whole with the [93—72] stiffened ribs to perform the function of amplifying the sound without setting up a pitch of its own.

The COURT.—Q. That reduces the vibratory effect? A. Yes.

Mr. MILLER.—Q. Look on the inside and tell me what kind of a surface you find there?

A. It is substantially flush, an unbroken surface, broken only by the angles of the plane of the several strips.

Q. Is there any function due to that construction of having a comparatively smooth interior?

(Testimony of Baldwin Vale.)

A. Yes, because all sound is reflected from the surface with which it comes in contact. It has been proven that a hard highly polished surface is the best reflector for sound.

Q. You do not find any projections or protuberances substantially on the inside of that horn?

A. No, sir.

Q. You do find them on the outside? A. I do.

Q. Now I show you the Plaintiff's Exhibit 12, and will first ask you what kind of a seam or joint that is.

A. This is a lock seam joining the strips.

Q. And in that connection I will hand you Plaintiff's model Exhibit 12, and ask you what kind of a seam or joint that is? A. This is a lock seam also.

Q. How would those seams compare in general with the lock seam that you have illustrated here with these tin strips that you had made?

A. They are identical.

Q. What effect would the construction of a lock seam of that kind have on a horn as to amplifying the sound?

A. It would correct or minimize the tintinnabulation or vibratory disposition of these strips just as it would in the case of exhibit No. 9.

Q. How is it about the surface of the interior of these two [94—73] last exhibits handed to you?

A. The surface is substantially flush or smooth.

Q. And that, I suppose, would have the same effect you already attributed to a smooth interior surface?

A. Exactly.

Q. Now, I hand you the plaintiff's two exhibits

(Testimony of Baldwin Vale.)

No. 14 and 15, and ask you what kind of a joint or seam do you find in those exhibits?

A. I find the same lock seam that I have just described.

Q. In both of them?      A. Yes.

Q. Now, I hand you the Plaintiff's Exhibit 12 which you can refer to as the old B and G horn.

The CLERK.—That must be another mark. That is exhibit 8.

Mr. MILLER.—Plaintiff's Exhibit 8, the old B and G horn, and I ask you to compare the accoustic qualities of that horn with these other horns showing the lock seam and flange joint that you have already testified to.

A. From an accoustic standpoint this horn is a joke. It practically has not any. The whole purpose and function of a trumpet like this is to project a noise or to create a musical note of its own. It is not properly formed in any sense of the word to amplify any projected sound.

Q. To what do you attribute that result in this horn?

A. The shape and form of the body and to a too sudden flaring bell.

Q. What construction do you find on the black portion, or body portion to be?

A. It is joined on the two edges with the usual lock seam.

The COURT.—Q. It is a single piece?      A. Yes.

A. Yes.

Mr. MILLER.—Q. One piece just folded, rather?

(Testimony of Baldwin Vale.)

A. Exactly. It is the same process that would be followed [95—74] in making a flaring joint of stovepipe to be joined on the stove.

Q. Where do you find the rib in that horn?

A. I find a rib on the inside.

Q. Can you attribute any effect of that rib being on the inside?

A. It appeals to the eye more than it does to the ear.

Q. Explain what you mean by that?

A. It makes a sightly horn and one that would sell readily. At that time they did not go seriously into the accoustic properties of a horn.

Q. What is the effect on the accoustic properties of having the rib on the inside rather than on the outside?

A. Any projection above the plane of any sound reflecting surface is bad. That is common sense.

The COURT.—Q. What is the effect of the horn being composed of a single sheet or piece?

A. It sets up a vibration of its own and a note practically its own and interferes seriously with the diffusion of sounds that are projected by the talking machines.

Mr. MILLER.—Q. Does the bell part of that horn also set up another vibration?

A. It does just like the bell of a cornet or any wind instrument on which the sound depends for the bell to set up that note or vibration.

Q. Would there be a separate vibration from the vibration created by the tin or black part of the

(Testimony of Baldwin Vale.)

horn? A. Yes.

Q. And there would really be two sets of vibrations in that horn? A. Yes.

Q. And that would interfere with the accoustic quality of the horn? A. No doubt of it.

Mr. MILLER.—You may take the witness. [96—75]

Cross-examination.

Mr. ACKER.—Q. I understand from your direct testimony that you have been engaged in the prosecution of applications for letters patent? A. Yes.

Q. What are the forms of letters patent that are issued by the United States Government?

A. What do you mean by “the forms?”

Q. What kind or character of patents are issued by the United States Government?

A. Mechanical process and composition and design. That is about all.

Q. What is the purpose of a design patent?

A. To cover a superficial ornamentation.

Q. Shape or configuration?

A. Yes, to a certain extent.

Q. What do you mean by “certain extent”?

A. Where it does not border on mechanical features.

Q. Throughout your testimony you have referred to and used the expression “seam” in connection with the horn. I will ask you, do the letters patent in suit make any reference to a seam, and you may refer to the specifications and point out wherein any reference is made to a seam.

(Testimony of Baldwin Vale.)

A. Even if I do not find "seam," it is a synonymous term. It has many synonyms. It is a joint.

Q. Do you find any such expression in the patent in suit?

A. (The witness examines the patent.) I do not find the word "seam" in the patent.

Q. Throughout your testimony when you used the expression "seam" as applied to these horns you were going outside of the patent, were you not, or outside of the disclosure of the patent?

A. Simply using my word for the joint, the name for the joint, which is a seam.

Q. What is your impression of a seam, your definition, your [97—76] mechanical definition of a seam?

A. It would be that portion of any two edges joined together.

Q. How does a rib differ mechanically from a seam?

A. Well, a rib is a thickening in cross sections within narrow longitudinal limits of the body of any material. It might be an overlapping of that material, or it might be an integral thickening of it and still be a rib.

The COURT.—Q. There might be a rib without a seam? A. Yes.

Q. And a seam might be so constructed as to constitute a rib? A. Yes.

Mr. ACKER.—Q. Is it your understanding that any seam that has any thickening of the metal constitutes a rib?

(Testimony of Baldwin Vale.)

A. To a certain extent, yes, if there is an overlapping of the body of the two joined parts.

Q. Is it possible to make a lock joint seam without having an overlapping of the metal?

A. Yes, by the introduction of a third element.

Q. What do you mean by the introduction of a third element?     A. Solder.

Q. Would that not create thickening of the metal at the point of union if it has a lock joint?

A. Yes.

Q. And that lock joint would have the thickening of the metal?     A. I think it would.

Q. Is it your understanding that that thickening of the metal in connection with a lock joint constitutes a rib?     A. Yes.

Q. And we may so understand your testimony *to* regard to the patent in suit?

A. I said if confined within the narrower longitudinal limits.     [98—77]

The COURT.—If it were a broad overlap it would not necessarily constitute a rib?     A. No, sir.

Mr. ACKER.—Q. What is disclosed by the specifications and the patent in suit as the rib?

A. The seam or joint between the multiplicity of strips composing the horn.

Q. Eliminate the word “seam” what is disclosed in the patent? What is the construction of that rib and how is it formed?     A. By a butt flange.

Q. And how does the rib stand relative to the surface of the horn?     A. It stands outwardly.

Q. At a right angle?

(Testimony of Baldwin Vale.)

A. Substantially at a right angle. It would not be an exact right angle.

Q. In describing the functions of the rib of the patent in suit, why is it that you have as the primary function to be the union of the sections of metal?

A. Because it is necessary to join those multiplicity of strips together to compose and form a horn.

Q. You find no such statement in the patent in suit?

A. I am talking from a mechanical standpoint now. I was asked to describe this horn. I am not supposed to know anything about the patent.

Q. What function is described by the patentee in the letters patent in suit for the formation of the ribs?

A. I don't know as I should answer that question.

Mr. MILLER.—Take the patent and read that portion.

Mr. ACKER.—Q. You are familiar with the patent in suit? A. Yes, more or less.

Q. You have examined it carefully?

A. I have read it.

Q. You were brought here as an expert?

A. As a mechanical expert.

Q. And as one familiar with patents, the understanding of [99—78] patents and the reading of the drawings? A. Yes.

Q. And you have examined this patent?

A. Yes.

(The reporter read the question.)

A. (The witness examines the patent.) It says

(Testimony of Baldwin Vale.)

“And which are connected longitudinally so as to form longitudinal ribs.”

Q. That is a statement as to how the ribs are formed?     A. Yes.

Q. What is the function described by the patentee in letters patent in suit for those ribs?

A. In his statement of the invention he says “This invention relates to the horn of a phonograph or other machine of this class; and the object thereof is to provide a horn for machines of this class which will do away with the mechanical, vibratory, and metallic sound usually produced in the operation of such machines, and also produce a full, even and continuous volume of sound in which the articulation is clear, full and distinct.”

The COURT.—Line 71 says: “It is the longitudinal ribs which contribute mostly to the successful operation of the horn, said ribs serving to do away with the vibratory character of horns of this class as usually made and doing away with the metallic sound produced in the operation thereof.”

The WITNESS.—Yes, that answers it.

Mr. ACKER.—Q. That is the function of the ribs of the patent in suit?     A. Yes.

Q. Examine the drawings of the patent in suit and state how the body portion of the horn is formed?

A. It is formed of a multiplicity of strips narrower at one end than the other with curved edges, the edges turned up to form flanges which are secured to the flanges of the adjacent strips.

Q. It is those flanges that form the rib that the

(Testimony of Baldwin Vale.)

patentee [100—79] refers to as accomplishing the object sought to be obtained from the patent in suit?

A. Yes.

Q. Does the patent disclose any other form of a rib other than the one which is brought about by turning the longitudinal strips at right angles outwardly?

A. By inference, yes.

Q. What do you mean by “inference”?

A. I do not find any other method described, but I think that would be apparent to anyone skilled in the art.

Mr. ACKER.—Q. Please examine the specifications of the patent in suit and by reference thereto explain to the jury how the strips are to be united. In other words, what disclosure or provision is made in the patent in suit for the union of the strips?

A. Line 45. “The body portion of the horn is also composed of a plurality of longitudinal strips B, which are gradually tapered from one end to the other, and which are connected longitudinally, so as to form longitudinal ribs B2.”

Q. How?

A. It does not say how, it says “connected.”

Q. There is no disclosure in the patent in suit as to how those strips are to be connected?

A. Connected in any way that you know how.

Q. If anyone knows how to do it he can do it?

A. Yes, if he is skilled in the art. You are not talking to anybody else in a patent.

Q. Why is it in having the strips made that you produced this morning, exhibit 20 and exhibit 18

(Testimony of Baldwin Vale.)

and 19, that you instructed the mechanic to make a lock joint flange?

A. To illustrate how lock joint flanges are made.

Q. And that was the sole purpose of producing the strips? A. Certainly. [101—80]

Q. When the lock joint is made, the edges are fitted one to the other and then closed down, are they not? A. That is one form.

Q. That is the ordinary and usual form of a lock joint? A. No, sir.

Q. In making a lock joint, do you not close the metal down?

A. After one edge is enfolded over the other, yes.

Q. You close it down? A. Yes.

Q. And that makes a seam? A. Yes.

Q. If you wished to provide a rib for that seam, how would you go about it?

A. The rib is formed in the formation of the seam. It could not be otherwise.

Q. In the patent in suit—the only disclosure of the patent in suit is the formation of the strips with the longitudinal edges of the flange outwardly, is that not correct? A. Yes.

Q. If those two edges are brought together and then closed one down on the other, where would the rib be?

A. It would be above the plane of the strip.

Q. That would be the thickening of the metal.

A. Yes.

Q. Is it your understanding that any horn that discloses a thickening of metal in the longitudinal

(Testimony of Baldwin Vale.)

seam where there is more than one piece provided for the horn accomplish the result of the horn of the patent in suit?

A. It accomplished the formation of a rib for the purposes described.

Q. For the purpose of removing the vibration and the mechanical sound from the horn? A. Yes.

Q. And any horn composed of more than one piece with the [102—81] longitudinal seam formed in any manner where there is a thickening of the metal would accomplish that purpose, is that correct?

A. You have got to keep in mind the function of this horn. I do not say that a square horn would be the same as a polygonal shaped horn like this with many parts.

Q. The function of the horn is to destroy the mechanical vibratory metallic sounds produced, that is, correct? A. Yes.

Q. How does the inventor, what disclosure does the inventor make to the public as to the means for accomplishing that?

A. By making the body of the horn in many strips.

Q. How many are disclosed by the patent?

A. Twelve.

Q. Is it your understanding, then, that the patent in suit is limited to a construction of a horn composed of twelve strips? A. Not at all.

Q. A plurality of strips?

A. A multiplicity of strips rather than plurality.

Q. Four is a multiplicity, but under certain condi-

(Testimony of Baldwin Vale.)

tions three would be a multiplicity and two would be a multiplicity?

A. Yes, but we have the drawing here?

Q. The drawings say twelve? A. Yes.

Q. Is it your understanding that if there is any protrusion of metal on the interior of the horn at the bend of the seam that it destroys the object which the patent had in mind?

A. It does not destroy it, it limits it.

Q. It does not accomplish the result? [103—82]

A. Not so well. He is showing the preferred way of doing it.

Q. But it is the ribs which the patentee speaks about that contribute to the successful operation of the horn?

A. Yes, the ribs in combination with the shape.

Q. It is the ribs being provided on the exterior surface of the horn which accomplishes the result set forth as the object of the invention, is that not correct?

A. Which contributes mostly to the accomplishment of the invention, yes.

Q. How long have you known of phonographic horns? A. I think about fourteen years.

Q. What are the various shapes of phonographic horns known to you?

A. The straight, a short cone and then the straight-sided larger cone with a flaring bell added, which conforms to the "B" and "G" exhibit, and then later on the flower shape.

Q. All of those horns are what might be termed

(Testimony of Baldwin Vale.)

bell shaped horns, are they not?      A. Hardly.

Q. They are outwardly flaring horns larger at one end than at the other?

A. The first described have an outwardly tapering horn and not flaring.

Q. When was the outwardly flared horn first known to you?

A. I think about—I don't know exactly, but I simply gather it from observation—I think it was about twelve or thirteen years ago.

Q. Do I understand from your testimony that the joint union between the longitudinal strips of Exhibit 20 are made in the same manner as the joint union in the seam of Exhibit Horn No. 8?

A. No, I do not say that they are made in the same manner. I say the same lock seam. [104—83]

Q. They are both lock seam horns?

A. They are both lock seam horns.

Q. That was well known to you in connection with phonographic horns for the past how many years?

A. I did not examine the horns as closely as that. I was talking about the shape. I did not observe at that time whether it was a lock seam or any other kind of a seam.

Q. When did you first observe the lock joint seam in connection with phonographic horns?

A. When the flower horns first came out.

Q. What do you mean by "the flower horn"?

A. The outwardly flaring curved horn.

Q. Why do you use the expression "flower horn"?

A. Because that is the term that is used in the

(Testimony of Baldwin Vale.)

trade for designating that shape of horn.

Q. And that was known to you to be used in the trade?

A. Yes, known to the public and advertised in the catalogues as the flaring horn.

Q. Referring to the horn introduced in evidence for identification Z, I will ask you whether that horn represents the flower horn?

A. Yes, that is the shape of a flower horn.

Q. Did you ever see any of these horns on the market?     A. Not until recently.

Q. That is what would be termed a flower horn?

A. Yes.

Q. And conforms to the general appearance, shape and outline of the horn of the patent in suit which you have termed the flower horn?     A. Yes.

Q. And that horn is made of a multiplicity of strips?

A. Yes, sir, it is made of a multiplicity of strips.

Q. And each of those strips are united at the longitudinal edge?     A. Yes. [105—84]

Q. And would you term the part which projects above the metal at the longitudinal seam union of those strips a rib?     A. Yes.

Q. Meaning by a rib in the same sense to which you have applied it to the patent in suit?     A. Yes.

Q. And for the accomplishment of the same purpose?     A. Yes.

Q. And it does accomplish the same purpose?

A. I think so.

Q. That is, it destroys mechanical noise and vibra-

(Testimony of Baldwin Vale.)

tion? A. It does.

Q. In answering that question you do not consider it modified in any manner by the protrusions likewise on the inside surface of the horn?

A. I do not.

Q. And there being a seam or protrusion on the interior? A. No, sir.

Q. Is it your understanding that the horn of the patent in suit is confined to a metallic horn?

Q. Does the design of the horn of the Defendant's Exhibit "D" for identification compare with the general form and outline of the horn of the patent in suit?

A. By "design" do you mean in shape and configuration?

Q. Yes. A. Yes.

Q. Substantially the same?

A. Yes, it would be the same ordinarily to the eye.

Q. That applies the same as between the defendant's horn and this exhibit?

A. Anything made from a multiplicity of strips with a longitudinal rib.

The COURT.—Q. And a flare? A. Yes.

Mr. ACKER.—Q. The fact that the horn marked for identification as Defendant's Exhibit "D" is composed of a great many more strips than the horn of the patent in suit in no [106—85] manner at all changes your opinion or answer? A. No, sir.

Q. Suppose the horn was made of five strips rather than twelve, would it still be a horn under your understanding of the patent in suit, provided the

(Testimony of Baldwin Vale.)

strips were united by a longitudinal joint or seam and having protruding metal?

Mr. MILLER.—I object to that question as being a question of law.

Mr. ACKER.—This witness is put on as an expert in the construction of horns. I want to know what he means by a multiplicity of strips.

The COURT.—I do not suppose the question of what multiplicity means is a subject of expert testimony. We all know what multiplicity means, do we not?

Mr. ACKER.—According to the interpretation placed on it by this witness it must be a great many, and what in his opinion constitutes a great many.

The COURT.—I did not understand that the witness has so stated.

Mr. ACKER.—I may be mistaken in my understanding of his testimony on that point.

Q. Do you find in the patent in suit any statement that the horn shall comprise a multiplicity of strips? I am referring now to the description, not the drawing.

A. It says here “plurality of longitudinal strips.”

Q. What distinction, if any, do you make between the term “plurality” and the term “multiplicity”?

A. I should say a multiplicity would mean more than a plurality.

Q. Two would be a plurality, would it not?

A. Yes.

Q. Is it not required, Mr. Vale, in the presentation of an application for a patent to the Patent Office

(Testimony of Baldwin Vale.)

that you fully [107—86] show and describe the invention and the manner in which the parts constituting the invention are put together?

A. Yes, sir, certainly.

Q. And it would be necessary in describing a horn consisting of a plurality of strips to show how those strips should be united, wouldn't it? A. Yes, sir.

Q. And such would be the course that you would pursue in preparing an application for a patent, wouldn't it? A. Yes, sir.

Q. You would not leave it to the skilled mechanic, you would show and describe how those parts are to be united, would you not?

A. Why, not necessarily, specifically. I am dealing with men skilled in the art.

Q. Do the drawings or the disclosure of the patent in suit indicate any manner or means for the forming of the ribs referred to in the patent in suit other than on the edge of the metal strips?

A. That is left to the judgment of the man who is making it.

Q. Does the patent disclose?

A. Within the scope of the patent.

Q. How do you mean, within the scope of the patent?

A. A patent is not drawn to show exactly.

The COURT.—Q. The patent covers equivalent means for producing the same result?

A. Yes, exactly.

Mr. ACKER.—I want to find from the witness as one skilled in the preparations of applications for

(Testimony of Baldwin Vale.)

patents, whether in the preparation of an application for a patent it is necessary in setting forth the invention to show and describe how every part is joined and united together. My question goes as to whether there is any disclosure in this patent as to how the ribs should be formed on the exterior [108—87] surface of the horn other than by a joint union of the edges of the strips themselves?

A. It is sufficiently obvious that they could be joined in other manners.

The COURT.—Counsel is asking you, speaking strictly by the card, whether the patent discloses any other than the one method of forming these ribs?

A. Not in specific terms; no.

Mr. ACKER.—That is all that I have to ask the witness.

#### Redirect Examination.

Mr. MILLER.—Q. Just read to the jury from the specifications in the patent beginning at line 78 and ending at line 83.

A. "My improved horn may be used in connection with phonographs or other machines of this class, and changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages."

Q. As a person skilled in drawing up applications for patents, state the purpose of a clause of that kind being put in to the effect that changes and modifications may be made?

A. To read scope in. To lay the whole art open

(Testimony of Baldwin Vale.)

to one who was going to practice that particular thing.

Q. In making a specific description of the mechanism in a patent application, how many forms do you show?     A. One.

Q. And that one form which is shown in this patent is this flange joint?     A. Yes,

Q. Suppose a patent solicitor were to give the opinion that other forms might be used which would be a mechanical "[109—88]" equivalent of that, what does he do in order to cover that point?

A. He puts in the clause that I have just read.

Q. And the effect of that clause is what?

A. To entitle the patentee to the practice of his invention in its broadest scope.

The COURT.—Q. In any form which would accomplish the same object?     A. Yes.

Mr. MILLER.—Q. The horn marked Defendant's Exhibit "D" for identification has been shown to you. I will ask you what you find so far as ribs are concerned on the inside of the horn?

A. I find a rib between each alternate strip.

Q. And on the outside you find ribs also, do you?

A. The same thing, yes, sir.

Q. What is the object in putting ribs on the inside of the horn there?

A. In this instance the rib is a hinge with a pintal wire through it.

Q. That enables the horn to be folded up?

A. That form of horn zigzags and may be folded up. They have folded one edge over the other in

(Testimony of Baldwin Vale.)

order to get it within a small compass.

The COURT.—Q. Like a fan?     A. Yes.

Mr. MILLER.—Q. How do the protuberances or projections of that kind on the interior affect the accoustic properties?

A. They might have a slight effect on the accoustic properties, yes.

Q. In making those ribs on the inside of the horn for the purpose of folding the horn up the marker has run into another difficulty of making the horn less accoustic?

A. He sacrifices a certain amount of accoustic value to the other idea of getting a folding horn.  
[110—89]

Q. He had to sacrifice that in order to make the horn that way?     A. Yes, sir.

Q. And in making it that way he did accomplish the result of folding it up in a zigzag fashion?

A. Yes.

The COURT.—Q. There is another result of the construction, peculiar construction, of this horn, exhibit "D" for identification, which you will observe. There is a hinged joint here and they are such as to leave interstices through which you can see the light and through which air could circulate. Would that have any effect upon the accoustic properties of the horn?

A. No, sir, I think not. The interstices are so small compared with the vibration of the sound going through that it would not draw.

Mr. MILLER.—That is all.

Mr. ACKER.—That is all. [111—90]

**Defendant's Testimony.**

**[Certain Offers in Evidence, etc.]**

Mr. ACKER.—I offer in evidence printed copy of United States letters patent No. 72,422, *grated* to G. S. Saxton, December 17, 1867, and ask that the same be marked Defendant's Exhibit "A."

I also offer in evidence printed copy of letters patent No. 8824, dated December 7, 1865, granted to Frederick S. Shirley for an improved design. I ask that that be marked Defendant's Exhibit "B."

I offer in evidence printed copy of United States letters patent No. 693,460, granted to S. Takaba, Feruary 18, 1902. I ask that the same be marked Defendant's Exhibit "C."

I offer in evidence printed copy of United States letters patent No. 10,235, granted to E. Cairn, September 11, 1877, for design for speaking trumpet, and ask that the same be marked Defendant's Exhibit "D."

I offer in evidence printed copy of United States letters patent 165,912, granted to W. H. Barnard, July 27, 1875, and ask that the same be marked Defendant's Exhibit "F."

I offer in evidence printed copy of United States letters patent No. 181,159, granted to C. W. Fallows, August 15, 1876, and ask that the same be marked Defendant's Exhibit "F."

I offer in evidence printed copy of United States letters patent No. 409,196, granted to C. Hart, August

20, 1889, and ask that the same be marked Defendant's Exhibit "G."

I offer in evidence printed copy of United States letters patent No. 406,332, granted to J. C. Bayles, under date of July 2, 1889, and ask that the same be marked Defendant's Exhibit "H." [112—91]

I offer in evidence printed copy of United States letters patent No. 34,907, granted to C. McVeety, and J. F. Ford, August 6, 1901, and ask that the same be marked Defendant's Exhibit "I."

I also offer in evidence printed copy of United States letters patent No. 612,639, granted to J. Clayton, August 18, 1898, and ask that the same be marked Defendant's Exhibit "J."

I also offer in evidence printed copy of United States letters patent No. 651,368, granted to J. Lanz, June 12, 1900, and ask that the same be marked Defendant's Exhibit "K."

I offer in evidence printed copy of United States letters patent No. 705,126, granted to G. Oston and W. F. Spalding, July 22, 1902, and ask that the same be marked Defendant's Exhibit "L."

I offer in evidence printed copy of United States letters patent No. 648,994, granted to M. D. Porter, May 8, 1900, and ask that the same be marked Defendant's Exhibit "M."

I offer in evidence printed copy of United States letters patent No. 699,928, granted to C. McVeety and J. F. Ford, May 13, 1902, and ask that the same be marked Defendant's Exhibit "N."

I offer in evidence printed copy of United States letters patent No. 739,954, granted to G. H. Villy

under date of September 29, 1903, and ask that the same be marked Defendant's Exhibit "O."

I offer in evidence printed copy of United States re-issue of letters patent No. 12,442, granted to G. H. Villy under date of January 30, 1906, the same being re-issue of Villy patent Exhibit "O." [113—92]

Mr. MILLER.—We object to that upon the ground that it is not prior to the patent in this suit. It is dated in 1906 and it is a re-issue of the first patent, but this patent in suit is dated in 1904. It can have no effect in construing the Neilsen patent which was granted two years before that. Of course the original Villy patent, whatever that shows, he is entitled to, but he is not entitled to show anything that came afterwards by virtue of a re-issue of that patent. I object to that as being not prior to the patent in suit and it would not tend to show the state of the art at the time of the granting of the patent in suit.

The COURT.—I do not see the competency of it for any purpose.

Mr. ACKER.—We are entitled to the benefit of all that is in that re-issue of the patent.

The COURT.—But that is a re-issue of the patent subsequent in date to the patent in suit. I will sustain the objection.

Mr. ACKER.—We note an exception.

### **Defendant's Exception No. 3.**

To which ruling of the Court the defendant by its counsel duly excepted and hereby tendered this its bill of exceptions for the Court to sign and seal, and the Court does hereby sign and seal the same.

I offer in evidence printed copy of British patent No. 7594, dated April 24, 1900, granted to W. P. Thompson, for an improvement in gramophones, and ask that the same be marked Defendant's Exhibit "P."

I also offer in evidence printed copy of British patent No. 20,567, granted to John M. Tourtell, dated September 20, 1902, and ask that the same be marked Defendant's Exhibit "Q." [114—93]

I also offer in evidence printed copy of British patent No. 17,786, dated August 13, 1902, granted to Harry Fairbrother, and ask that the same be marked Defendant's Exhibit "R."

I also offer in evidence certified copy of file wrapper application, on which eventually the letters patent in suit were granted, No. 771,441, to Peter C. Neilsen under date of October 4, 1904, the same being the patent in suit. I ask that it be marked Defendant's Exhibit "S."

I would now like to read to the jury depositions taken in the east in which these exhibits that are now here are referred to. I will first read the depositions taken at Newark, New Jersey pursuant to notice.

The COURT.—What is the name of the witness?

Mr. ACKER.—The first witness is John H. B. Conger.

[**Deposition of John H. B. Conger, for Defendant.**]

JOHN H. B. CONGER, a witness named in the annexed notice of taking testimony, produced on behalf of the defendant, first being duly sworn, testified as follows:

(Deposition of John H. B. Conger.)

Direct Examination.

(By Mr. CASE.)

Q. Will you please state your name, age, residence and occupation.

A. John H. B. Conger; 26 Van Ness Place, Newark, New Jersey; forty-one years of age; Vice-president and Treasurer of the Tea Tray Company of Newark.

Q. What is the business of the Tea Tray Company?

A. Manufacturing a general line of metal specialties.

Q. How long have you been Vice-president and Treasurer of the Tea Tray Company?

A. About six weeks. [115—94]

Q. How long have you been connected with the Tea Tray Company?

A. Since its organization—1892.

Q. What position did you occupy with the Tea Tray Company during the time that intervened between its organization and the time when you became Vice-president and Treasurer?

A. Secretary.

Q. Will you please tell us some of the metal specialties that the Tea Tray Company manufacture?

A. Metal trays, fire extinguishers, metal horns for talking machines, electrical reflectors, street fixtures, etc.

Q. Has the Tea Tray Company manufactured all of the said articles you have just mentioned con-

(Deposition of John H. B. Conger.)

tinuously since its organization?

A. All of the articles except the fire extinguishers.

Q. Are you thoroughly familiar with the metal specialties manufactured by the Tea Tray Company which you have heretofore specifically named?

A. Yes.

Q. Will you please state whether or not you are now able to produce any of the metal phonograph horns which you have heretofore testified the Tea Tray Company manufacture?

Q. Will you please now produce any metal phonograph horns manufactured by the Tea Tray Company, and give a general description of any such produced.

A. I will. The horn that I hold in my hand was known as 20-inch brass horn used in connected with phonographs. These horns were made as early as 1892, 1893 and later. [116—95]

By DEFENDANT'S COUNSEL.—The horn just produced and described by the witness defendant's counsel requests be marked in each of the foregoing entitled suits, "Defendant's Exhibit, Tea Tray 20-inch Brass Horn, for identification."

Q. If you are able, will you please produce and describe any other metal phonograph horn made by the Tea Tray Company?

A. The horn that I hold in my hand is known as a 19-inch horn manufactured for the Victor Talking Machine Company.

Defendant's counsel requests the horn produced by the witness be marked "Defendant's Exhibit,

(Deposition of John H. B. Conger.)

Victor Tea Tray Horn, for Identification."

Q. Will you please examine the Tea Tray Brass Horn, marked for identification, and tell us how the sections of the said horn are joined?

A. The sections of the brass horn are joined by what is known as a lock seam. A lock seam referred to, as I understand it, has the edges of the metal turned over and locked together by hammering the parts together.

Q. Now, examining the sections of this horn, will you please state whether or not the edges of each section are turned over in the same way. By that I mean, are both the edges of any particular section turned outwardly or inwardly or otherwise?

A. In order to make the lock seam the edges must be turned both ways to lock them.

Q. By both ways do you mean one edge of the section is turned outwardly and the other edge inwardly? [117—96] A. I do.

Q. In other words, each section of the brass horn you are now examining has one of its edges bent outwardly and the other of its edges bent inwardly so as to lock the edges of each other section is that correct? A. That is right.

Q. Are you able to produce a section of a phonograph horn that will show one of its edges turned outwardly and the other inward? A. Yes.

Q. Will you please do so?

A. I hold in my hand such a portion of a horn.

Q. Was this section made by the Tea Tray Company? A. It was.

(Deposition of John H. B. Conger.)

Q. And does it show the way the edges of the sections of the Tea Tray Brass Horn marked for identification are turned in a general way?

A. Yes.

Q. Will you please state whether or not the edges of the section of the phonograph horn you have just produced are similar to the edges of the phonograph horns you heretofore testified the Tea Tray Company makes for the Victor Talking Machine Company, one of which horns has been marked "Victor Tea Tray Horn for Identification"?

A. They are.

Q. As a matter of fact, the section that you have just produced was made up to be used in the horns manufactured by the Tea Tray Company for the Victor Talking Machine Company, was it not?

A. The section referred to is a part of a horn in the course of construction for the Victor Talking Machine Company. [118—97]

Defendant's counsel offers in evidence the phonograph horn section produced and described by the witness and asks that it be marked "Defendant's Exhibit Tea Tray Lock Seam Horn Section."

Q. Calling your attention to your answer to Q. 13, *wherein* wherein you described a lock seam, will you please state whether or not lock seams were used in other metal articles manufactured by the Tea Tray Company?

A. They were. In the manufacture of all our shades for electric lighting, particularly those known as cone shades, are joined by lock seams, as well as

(Deposition of John H. B. Conger.)

street hoods for arc lights.

Q. Will you please state whether or not this lock seam is in common use in your business as well as generally in the sheet metal trade?

A. The lock seam referred to is the usual way of joining metal together and has been in use for a great many years.

Q. And has this seam been used by your Company since its organization?      A. It has.

Q. Calling your attention to the Tea Tray Brass Horn marked for identification, tell us as specifically as you can when horns like this were sold by the Tea Tray Company and to whom, giving us all the particulars that you remember.

A. The brass horn referred to was one of the first specialties made by the Tea Tray Company. They were made in 1892, 1893 and subsequent dates. There were quite a quantity of them made for what was then known as the Parent Talking Machine companies, at that time [119—98] there being practically no jobbers of talking machines in this country. These horns were made by the Tea Tray Company and sold to the North American Phonograph Company, New York, the New Jersey Phonograph Company and the United States Phonograph Company of Newark, New Jersey.

Q. The concerns that you have just mentioned comprised practically all the talking machine makers in existence do they not, at that time?

A. As far as I know.

Q. Are you able to produce any books of the Tea

(Deposition of John H. B. Conger.)

Tray Company which will show sales of this Tea Tray Brass Horn to the parties you have just mentioned, together with the dates and amounts of such sales?     A. Yes.

Q. Will you please produce any such book, tell us the name of it and point to entries showing sales of this horn?

A. I produce herewith sales book of the Tea Tray Company showing sales from May 1st, 1892 to May 1st, 1895, and I will show on the following pages records of sales of 20-inch brass horns made to the North American Phonograph Company, United States Phonograph Company and New Jersey Phonograph Company, 114, 117, 121, 126, 163, 180, 184, 205, 219, 234, 211, 216, 235, 234, 252, 253, 261, 263.

Q. Was the sales book you have just produced one of the books kept by the Tea Tray Company and used in the usual course of its business during the years you have just mentioned?     A. It was.

Q. Is it a book of original entry as far as the sale of [120—99] Tea Tray Brass Horns go?

A. It is.

Q. Will you please state, if you know, who made the entries in said book just referred to, showing sales of the said Tea Tray Brass Horns?

A. The entries were made by myself as I did all the bookkeeping at that time.

Defendant's counsel offers in evidence the said book of the Tea Tray Company produced by the witness and ask that it be marked "Defendant's

(Deposition of John H. B. Conger.)

Exhibit Tea Tray Sales Books.”

Mr. MILLER.—No cross-examination.

Mr. ACKER.—The next witness produced is Charles J. Eichhorn.

**[Deposition of Charles J. Eichhorn, for Defendant.]**

CHARLES J. EICHORN, a witness produced on behalf of the defendants, being first duly sworn, testifies as follows:

Direct Examination.

(By Mr. CASE.)

Q. Please state your name, age, residence and occupation.

A. Charles J. Eichhorn; forty-nine years old; 75 Murray Street, Newark, N. J.; superintendent Tea Tray Company.

Q. In what business is the Tea Tray Company engaged?

A. Manufacture of sheet metal goods of all descriptions.

Q. How long have you been superintendent of the Tea Tray Company?     A. Since 1901.

Q. What business were you engaged in before 1901?

A. Metal spinning and sheet metal goods.

Q. About when did you first engage in this line of work?     A. Thirty-one years ago. **[121—100]**

Q. Have you been continuously engaged in this line of business in one capacity or another since you first took it up?

A. With the exception of about nine months.

(Deposition of Charles J. Eichhorn.)

Q. Are you a practical metal spinner and metal worker yourself?     A. Yes, sir.

Q. During your connection in this line of business will you please state briefly some of the articles you actually made yourself?

A. Well, to start in with, tin boxes of all descriptions, brass and copper goods, fire-extinguishers, phonograph horns.

Q. As a practical metal-worker, will you please name some of the ways and methods of joining pieces of metal such as used in making phonograph horns, for instance, commonly used in the metal working trade or art?

A. There are several ways. One, by lapping and either soldering or riveting, or grooving or flanged; by grooving, I mean that the edges are turned over, formed in a hook shape and then either hammered or rolled, binding them together; by flanging, I mean where the edges are turned at right angles to the face of the sheet, both pointing in the same direction and same joined by either solder or rivets.

Q. I show you a brass horn marked "Defendant's Exhibit Tea Tray 20-inch Brass Horn for Identification" and enquire if the sections of said horn show any of the methods of joining you have just mentioned, namely, lapping, flanging or grooving?

A. It does. [122—101]

Q. Please state which of the methods have been used in making this horn.

A. The longitudinal seams I find are grooved seams. The seam connecting the bell or flaring

(Deposition of Charles J. Eichhorn.)

part to the stem is what is termed a flanged seam with edge turned over.

Q. Did you ever see this brass horn named "Defendant's Exhibit Tea Tray 20-inch Brass Horn for Identification," now shown to you, before?

A. I did.

Q. When and where for the first time?

A. That is one out of a lot of twenty-five or thirty which were at the Tea Tray Company's plant when I first took charge of same in 1901.

Q. Will you please state whether or not there is any other phrase used in the metal trade or art to describe the joining of pieces of metal which you have just termed grooving?

A. Yes, grooving or lock seam, being one and the same.

Q. Since you have been the superintendent of the Tea Tray Company's plant, has that company turned out any other metal articles having grooved or locked seams?     A. Yes.

Q. Name a few.

A. Boxes made of sheet iron or steel, composed of three to six or eight parts, said parts being joined by lock seams.

Q. Can you think of any others?

A. Lamp shades, brass and copper receptacles for various purposes.

Q. Will you please state whether or not lock seaming or [123—102] grooving pieces of metal is a common method used by metal workers as well as one of long standing?     A. It is.

(Deposition of Charles J. Eichhorn.)

Q. Was this method used in the trade or art when you first became engaged in it thirty-one years ago?

A. It was.

Q. Has it been used by metal workers continuously during the time that you have been in this line of work? A. It has.

Q. I show you another phonograph or talking machine horn marked in these causes "Defendant's Exhibit Victor Tea Tray Horn for Identification," and ask you to examine the same and describe the method used in joining the sections of this horn together.

A. The sections of this horn are joined together by the locked or grooved seam.

Q. Are the edges of the sections of this Victor Tea Tray Horn longitudinal outwardly directed flanges? A. They are not.

Q. Will you please describe how the edges of the different sections used in the Victor Tea Tray Horn you are now examining are treated, and in making your answer you may also examine and refer to "Defendant's Exhibit Tea Tray Lock Seam Horn Section," in evidence?

A. The edges on sections of horn are formed by turning one toward the right, the other toward the left, forming a hook on a longitudinal edge of section.

Q. Can you use any other description in describing the edges of the sections of the Victor Tea Tray Horn than "Turning one toward the right, the other toward the left?" [124—103]

A. No, not that I know of, other than by using the

(Deposition of Charles J. Eichhorn.)

term that they must be turned in opposite directions in order to hook up with the other section.

Q. Couldn't you also describe the edges of the sections of the Victor Tea Tray Horn by saying that one edge is outwardly directed, and the other edge inwardly directed when the sections are in position in the horn?

A. Yes, that is one and the same thing.

Q. If you know, will you please state by whom the horn you have been describing, marked "Defendent's Exhibit Victor Tea Tray Horn for Identification," was manufactured?

A. By the Tea Tray Company.

Q. Was it manufactured under your supervision as superintendent of said company?      A. It was.

Defendant's counsel now offers in evidence horn identified by the witness and asks that it be marked Defendant's Exhibit Victor Tea Tray Horn."

Q. I notice that "Defendant's Exhibit Tea Tray 20-inch Brass Horn for Identification" and "Defendant's Exhibit Victor Tea Tray Horn" are made in sections; will you please state whether or not you know of any reason why these horns are made in sections rather than in one piece?

A. It would be almost impossible to make the horn in one piece of metal without having it extremely heavy and the cost would be prohibitive.

Q. I show you "Defendant's Exhibit Tea Tray Seam Horn Section," and ask you to tell me all you know, if [125—104] anything, about this exhibit.

A. I know that this petal or section was one of the

(Deposition of Charles J. Eichhorn.)

many which we are at present making into horns for the Victor Talking Machine Company. By "we" I mean the Tea Tray Company.

Q. Calling your attention to "Defendant's Exhibit Tea Tray 20-inch Brass horn for Identification," "Defendant's Exhibit Victor Tea Tray Horn" and "Defendant's Exhibit Tea Tray Lock Seam Horn Section," I enquire if you know how the said articles were produced at this hearing?

A. I ordered them wrapped up this morning.

Q. Where? A. At the Tea Tray Factory.

Q. Who brought them up here? A. I did.

Cross-examination.

(By Mr. MILLER.)

XQ. Referring to "Defendant's Exhibit Victor Tea Tray Horn" now before you, who originated the design of that horn?

A. As far as I can recollect, I made up the first one and the design was altered several times to suit the Victor Talking Machine Company.

XQ. Did you secure a U. S. Patent for that design of horn? A. No, I did not.

XQ. Are you the same Charles J. Eichhorn mentioned in United States Letters Patent No. 797,725, dated August 22, 1905, covering a design for phonograph horns? A. I am.

XQ. Isn't the design contained in the patent substantially [126—105] the same design as this "Defendant's Exhibit Victor Tea Tray Horn"?

A. I don't know, because I don't know what you

(Deposition of Charles J. Eichhorn.)

are referring to. I don't know what patent you are referring to.

XQ. I am referring to your own patent. Don't you know anything about your own patent?

A. I do.

XQ. Then tell me if the design in your own patent referred to is not substantially the same design as this "Defendant's Exhibit Victor Tea Tray Horn"?

A. I can't answer that, because I don't know the patents by numbers.

XQ. Do you remember the design shown in your own patent which you say you originated?

A. Which patent?

XQ. I have only referred to one patent. That is the one that I am talking about. Now, if you want to answer this question fairly and squarely do so, and if you don't want to answer it, but want to evade it, say so.

A. I intend to answer everything fairly and squarely; I have no cause to conceal anything, but I have had several patents allowed and I do not remember them by number. In fact, it has been quite some time since they have been allowed and I have forgotten them.

XQ. You never had but one design patent issued for phonographic horns, so far as the records show. Isn't that true?

A. I don't know whether it is one or two.

XQ. Then the fact is that you have such a wretched memory [127—106] that you do not even know how many patents you had issued to your-

(Deposition of Charles J. Eichhorn.)

self on designs for phonographic horns. Is that correct?

A. I have had three or four patents allowed—whether one or two of them was for designs, I don't know.

XQ. Referring you to your answer to XQ. 33, you there referred to a design which you originated and which was altered several times to suit the Victor Talking Machine Company. Now, wasn't that design the design which was covered by your design patent or one of your design patents, and wasn't it substantially *the design* as the design of this model "Victor Tea Tray Horn"?

A. Answering that question, I will state, it is customary in factories whenever there is a new design got up to submit several and then same are modified or altered to suit the people whom they are made for.

XQ. Is this "Defendant's Exhibit Victor Tea Tray Horn" I notice on the outside where the sections are joined together longitudinally, colored in bronze, ribs, beads or protuberances, whatever you choose to call them, and they appear to be raised on both sides. Would you call those longitudinal ribs or beads or what would you call them in the metal art?

A. They are known in the trade or art as seams.

XQ. This exhibit here is a horn for phonographs, isn't it? You will at least admit that much?

A. Yes, sir.

XQ. Is it larger at one end than at the other?

A. It is.

(Deposition of Charles J. Eichhorn.)

XQ. Is it tapered from the small to the large end?  
[128—107]

A. It is, on a curving, with a curve.

XQ. Is it composed of longitudinally arranged strips? A. It is.

XQ. Are these strips secured together at their edges?

A. They are secured together after they have been edged over, but not at their extreme edges.

XQ. I did not ask you anything about their extreme edges. I asked you if these longitudinal sections were secured together at their longitudinal edges. A. I think I answer that question.

XQ. Is that all the answer you are going to give to it?

A. I don't see as I can make any other answer.

XQ. The question admits of an answer of either yes or no. Can't you answer it? A. No.

XQ. You mean by that, I assume, that these strips are not secured together at their edges. Am I correct in that?

A. I mean that these strips, before they are secured together, are edged over and the two edges are hooked one to the other before they can be secured together.

XQ. The hooks secure the edges together, do they not, by one interlapping with the other?

A. After they are hooked into one another, yes.

XQ. And when two of these sections are hooked up together they are secured together, are they not?

A. After being hammered or rolled, yes.

(Deposition of Charles J. Eichhorn.)

XQ. In practice do you hammer them or roll them?

A. We have done both.

XQ. Which method was pursued with this particular exhibit now before you?

A. Hammering. [129—108]

XQ. What is the shape of the hammer-head which does that work?

A. It is a little rounded off toward the edges, a very slight rounded face.

XQ. In this exhibit the longitudinal ribs on the outside appear to be struck up to a slight extent. How was that operation performed?

XQ. In answer to Q. 30, you stated that you ordered these three exhibits wrapped up this morning and brought them here yourself. Who was it you ordered to wrap them up? A. Mr. Magill.

XQ. Who delivered them to Mr. Magill?

A. I delivered the petal or section myself and requested him to get the balance of the other four horns.

XQ. Then, if I understand you, Mr. Magill went off and got the two horns in this case and brought them to you and you brought them up here; is that right?

A. Yes, I ordered them wrapped up; yes.

XQ. Did you see where Mr. Magill got the two horns?

A. There was only one place on the factory to get them.

XQ. Now, I must insist that you quit evading these questions and answer them; otherwise I will

(Deposition of Charles J. Eichhorn.)

stop the examination right here. I am entitled to answers to my questions. Now, please answer **the** question which will be read to you.

A. I seen the horns there where they belonged, and he went and got them there, in the stock-room where those goods are kept, of the Tea Tray Company.

XQ. Did you go with Mr. Magill to the stock-room?

A. I did not. [130—109]

XQ. Then you did not see Mr. Magill get those two horns from the stock-room, did you?

A. No, sir. But coming to think, one of those horns was in the main office of the Tea Tray Company and was taken out of there.

XQ. Who had brought that one to the office?

A. That I couldn't say exactly. I couldn't say who brought it in, because I didn't happen to be in the office when it was brought in.

XQ. When was the last time you were in that store-room from which you say these two horns were brought?

A. About Wednesday or Thursday—Tuesday or Wednesday, of this week.

XQ. Were there any more of these 20-inch brass horns there? A. Yes, sir.

XQ. How many?

A. As I stated in my examination, this is one of the twenty-five or thirty that there were.

XQ. Were they all new horns? By that I mean never been sold or used?

A. They were all horns that had been wrapped up for years and stacked one on top of the other. They

(Deposition of Charles J. Eichhorn.)

had not been sold.

XQ. Do you know why they had been wrapped up and stacked away for years?

A. Yes. They were wrapped up to protect them from tarnishing, and they were stacked up to take as little room as possible in our stock room.

XQ. Are horns of this kind on sale now by your Company?

A. No, sir; not unless they are specifically asked for. [131—110] What I mean by that is they are not being made at present unless specifically ordered.

XQ. Then, if I understand you, these 20-inch brass horns have been discontinued and what remains of them in stock, some twenty-five or thirty, have been wrapped up and stored away for years? Is that a fair statement of the facts? A. Yes, sir.

XQ. I notice on the Defendant's Exhibit Victor Tea Tray Horn, the picture of a dog in front of a horn of a phonograph; is the horn there represented the 20-inch brass horn which has been offered in evidence here or some other horn.

A. Why, certainly not.

XQ. Then that represents an entirely different horn from the style of horn represented by the 20-inch brass horn, doesn't it?

A. This picture you refer to on this horn "Defendant's Exhibit Victor Tea Tray Horn" represents a horn similar to the 20-inch brass horn referred to with the exception that at the time this cut was made the Victor Talking Machine Company were using a different style of horn to the one represented on the

(Deposition of Charles J. Eichhorn.)

exhibit I last referred to. I might further state the horn referred to in the picture had a small screw thread on the end of the stem, and at that time we were making horns for a cylinder machine as well as for disc machines. The end of stem was threaded or formed straight to accomodate either style machine.

XQ. Has the Victor Talking Machine Company discontinued the horn shown in the picture? [132—111]

A. As far as I know. I don't know whether they have or not. I don't know anything about it.

Mr. ACKER.—I will now read the deposition of George C. Magill.

**[Deposition of George C. Magill, for Defendant.]**

GEORGE C. MAGILL, a witness produced on behalf of the defendants, being duly sworn, testified as follows:

Direct Examination.

(By Mr. CASE.)

Q. Please state your name, age, residence and occupation.

A. George C. Magill; forty-three years old; residence, 311½ South Twelfth Street, Newark, New Jersey; manager of the order department, Tea Tray Company, Newark, New Jersey.

Q. How long have you been the manager of the order department of the Tea Tray Company?

A. About five years.

Q. What was your employment previous to the time that you became the manager of the order de-

(Deposition of George C. Magill.)

partment of the Tea Tray Company?

A. Shipping clerk of the Tea Tray Company.

Q. How long were you shipping clerk of the Tea Tray Company?

A. Twelve and a half years, shipping clerk.

Q. Were you connected with the Tea Tray Company in any other capacity prior to the time you were shipping clerk?

A. Yes, assistant shipping clerk for six months.

Q. When did you first enter the employment of the Tea Tray Company in any capacity? [133—112]

A. 1893, eighteen years ago.

Q. Will you please tell us briefly what your duties were as assistant shipping clerk and shipping clerk of the Tea Tray Company?

A. The first six months I assisted in all the shipping and at times made deliveries to customers with the truck and by hand. As shipping clerk I had charge of all shipping of the Tea Tray Company at Newark.

Q. Now, will you please give us the names of some of the articles manufactured by the Tea Tray Company that you now remember as having actually passed through your hands either as assistant shipping clerk or as shipping clerk?

A. Horns for phonographs; horns for disc machines; in fact, horns for all classes of talking machines; shades for electric light purposes; hoods for electric lighting; metal specialties of various descriptions.

Q. I show you a brass horn marked "Defendant's

(Deposition of George C. Magill.)

Exhibit Tea Tray 20-inch Brass Horn for Identification"; will you please tell me if you ever saw a similar horn? If your answer be yes, when and where and under what circumstances?

A. Yes, I first saw it about eighteen years ago when they came to my hands to be delivered. I wrapped them and delivered, as far as I remember, a small quantity to the United States Phonograph Company, at that time located corner of Orange and Plane Street, Newark, New Jersey.

Q. Will you be a little more explicit when you say "Came into my hands to be delivered," and tell us from whence they came? [134—113]

A. These horns came from the polishing department of the Tea Tray Company and were all ready for wrapping. It was my duty then to wrap goods; these were wrapped by me and delivered to the customer as stated before.

Q. Can you give us some idea of the number of these horns that passed through your hands as assistant shipping clerk or shipping clerk of the Tea Tray Company?

A. I don't remember the entire quantity as I do not carry those things in my mind, but I remember delivering them in lots of from twenty-five to a hundred at a time; just how many times these were delivered to this concern and other concerns, I do not remember.

Q. Can you tell me approximately during what years subsequent to 1893 you continued these deliveries of these horns?

(Deposition of George C. Magill.)

A. As near as I can remember, the bulk of them was delivered between 1893 and 1898.

Q. Can you recall any other parties to whom these brass horns were delivered between the dates you have last mentioned other than the United States Phonograph Company?

A. The New Jersey Phonograph Company, The North American Phonograph Company.

Q. Calling your attention to your answer to Q. 9, will you give me a little more particulars about the delivery of horn like the one I show you, to the United States Phonograph Company, if you remember any?

A. We received orders for this Company, the United States Phonograph Company, for these horns and on several occasions, I have delivered them personally [135—114] by the Tea Tray Company Truck on account of orders sent to us by them.

Q. Were you present at the hearing yesterday during part of the time that the witness Eichhorn was testifying?     A. Yes.

Q. Did you hear Mr. Eichhorn mention a person by the name of Magill when he was being examined as to how the Tea Tray brass horn was produced here?     A. I did.

Q. Are you the Mr. Magill that Mr. Eichhorn referred to?     A. I am.

Mr. MILLER.—No cross-examination.

Mr. ACKER.—I will now read the deposition of Peter Shooppler.

**[Deposition of Peter Shoeppler, for Defendant.]**

PETER SHOEPPLER, a witness produced on behalf of the defendant, being duly sworn, testified as follows:

Direct Examination.

(By Mr. CASE.)

Q. Will you please state your name, age, residence, and occupation?

A. Peter Shoeppler; sixty-five years old; 48 Bloom Street, Newark, N. J.,; tinsmith.

Q. How long have you been a tinsmith?

A. Forty-five years.

Q. And during that time have you made all kinds of tinware? A. Every kind.

Q. Were you ever employed by the Tea Tray Company? A. Yes, sir.

Q. When were you first employed there?

A. About 1890. [136—115]

Q. And from how long a time after 1890 did you work for the Tea Tray Company?

A. About sixteen years all together, off and on.

Q. Now, when you worked for the Tea Tray Company what did you work on?

A. On the hoods for electric lights, trays, relay boxes.

Q. Did you ever work on phonograph horns for the Tea Tray Company? A. I worked sometimes.

Q. I show you a brass phonograph horn marked "Defendant's Exhibit Tea Tray 20-inch Brass Horn for Identification; did you ever see a horn like that before? A. No.

(Deposition of Peter Shoeppler.)

Q. Did you ever make a horn like that?

A. Not before I worked for Tea Tray Company I made nothing.

Q. During the time that you did work for the Tea Tray Company did you make horns the same as I now show you?

A. A thousand or twelve hundred. I make sometimes three hundred and sometimes five hundred. I don't know the exact number.

Q. Will you please look at the horn "Defendant's Exhibit Tea Tray 20-inch Brass Horn for Identification" and tell me if you know how the sections are joined together, longitudinally?

A. A grooved seam.

Q. Can you tell by examining the horn to which I am calling your attention who made that horn?

A. Sure I made them, but I don't know whether I made this one. [137—116]

Q. But the ones that you made when you worked for the Tea Tray Company were exactly like this, is that so? A. Yes, sir.

Cross-examination.

(By Mr. MILLER.)

XQ. Were you born in Germany?

A. In Anspach.

XQ. In what year did you come to the United States? A. 1883.

XQ. Have you taken out your citizenship papers?

A. Yes, sir, I have got my papers.

XQ. In what year did you take out those papers?

(Deposition of Peter Shoeppler.)

A. I don't know the year for sure. I think it was in 1890 or 1891.

XQ. From what court did you get your papers?

A. At the City Hall in Newark.

XQ. Do you remember the name of the Court which issued your papers? A. Yes, sir.

Mr. MILLER.—Cross-examination closed.

Mr. ACKER.—I will now read the deposition of William J. Noble.

**[Deposition of William J. Noble, for Defendant.]**

WILLIAM J. NOBLE, a witness produced on behalf of the defendants and named in the annexed notice of taking of testimony, first being duly sworn, testifies as follows:

Q. Please state your name, age, residence and occupation.

A. William J. Noble, 37; 109 Sexton Street, New Britain, tinsmith.

Q. How long have you been a tinsmith?

A. Twenty-six years. [138—117]

Q. Will you tell us please, with what persons or firms you have been connected with as a tinsmith during these twenty-six years?

A. T. H. Brady of New Britain.

Q. Are you connected with T. H. Brady?

A. Yes, sir.

Q. Have you been connected with T. H. Brady during all of the twenty-six years that you have been a tinsmith? A. Yes, sir.

Q. In what capacity are you associated with T. H. Brady? A. Foreman for him.

(Deposition of William J. Noble.)

Q. Will you tell us briefly the nature of Mr. Brady's business?

A. Tin, sheet iron and metal worker.

Q. And during your connection with Mr. Brady have you actually worked in all the lines you have just mentioned?     A. Yes, sir.

Q. Name, if you will, a few of the articles manufactured by T. H. Brady during the time of your association with him, upon which you actually worked?

A. Stove-pipes, wash boilers, electric light hoods, elbows, tea-kettles, milk pans, phonograph horns and several other things.

Q. Now, will you tell us please, Mr. Noble, as a practical worker in metal and tin, some of the methods used in the trade of joining together pieces of metal, tin or other material?

A. We have a lock seam, a flange seam, and the lap seam.

Q. Are the methods of joining materials you have just described in common use in your line of business? By that I mean, are they generally and usually used by metal workers and tin workers?  
[139—118]     A. Yes, sir; it is.

Q. And have such methods of joining metals been used in the trade as long as you remember?

A. Yes, sir.

Q. I show you two phonograph horns in evidence and marked "Defendant's Exhibit Tea Tray 20-inch Brass Horn" and "Defendant's Exhibit Tea Tray Horn," respectively, and calling your attention to

(Deposition of William J. Noble.)

the seams in each of these exhibits, I ask you to examine these seams and tell us, if you can, if they are any one of the seams which you have just testified are in common use in the metal or tin trade?

A. Why this one is, this is what we call the lock seam (referring to Defendant's Exhibit Tea Tray 20-inch Brass Horn). This one is practically the same only part of it is inside, and part is outside. That is owing to the machine or stake used in making it. (Witness refers to Defendant's Exhibit Victor Tea Tray Horn.)

Q. Again examining "Defendant's Exhibit Victor Tea Tray Horn," particularly the sections of which it is made, will you tell us, please, whether or not these sections are provided at their edges with longitudinal outwardly directed flanges?

A. I'd call them inside and out seams.

Q. Does the tin section of a phonograph horn marked "Defendant's Exhibit Tea Tray Lock Seam Horn Section" illustrate what you mean by your answer to last question?      A. Yes, sir.

Q. Then a horn made of sections like this exhibit, "Defendant's Exhibit Tea Tray Lock Seam Horn Section," is not [140—119] one composed of longitudinally arranged strips of metal provided at their edges with longitudinal outwardly directed flanges, is it?

A. No, sir; one is turned in and the other is turned out.

Q. Will you tell us, please, whether or not you made while in Mr. Brady's employ any metal or tin

(Deposition of William J. Noble.)

articles having what you have hereinbefore designated, a locked seam, and if your answer be yes, please name any of such articles that you now recall?

A. Yes, sir; electric light hoods, stove-pipes, wash-boilers, four or five horns for phonographs, elbows and numerous different kinds, all told.

Q. Can you produce now any electric light hoods having this locked seam?     A. Yes, sir.

Q. Will you please do so?

A. This is one with a locked seam, this is another.

Defendant's counsel asks that the hoods just produced by the witness be marked "Defendant's Exhibit Brady Hood No. 1 for Identification."

Q. About when were these hoods made?

A. About ten years ago.

Q. Can you tell us, approximately, how many were made?

A. We made ten or a dozen of that size or style at that time. Within eighteen or twenty years ago we made thousands of the same style but larger. The demand for this large size has died out; they quit using them.

Q. Did the large size hoods which you refer to in your last answer have their sections joined by seams like in the hoods just marked for identification?  
[141—120]     A. Yes, sir.

Q. And are the seams in both the large sized hoods and the hoods marked for identification like the seams in "Defendant's Exhibit Victor Tea Tray Horn" and "Defendant's Exhibit Tea Tray 20-inch Brass Horn" which I now show you?     A. Yes, sir.

(Deposition of William J. Noble.)

Q. Can you now produce any of the large sized hoods which you manufactured eighteen or twenty years ago?     A. Yes, sir.

Q. Will you please do so?

A. They are not here; they are at the factory in New Britain.

Q. Can you produce any other style of electric light hoods made during the time your connection with T. R. Brady?     A. Yes, sir.

Q. Will you please do so?

A. I herewith produce two.

Defendant's counsel asks that the hoods produced by the witness *and* marked "Defendant's Exhibit Brady Hood No. 2 for Identification"; it is agreed between counsel that the larger hoods produced by this witness be sent to the clerk of the U. S. Circuit Court for the Northern District of California, and the other one to the Clerk of the U. S. Circuit Court for the Southern District of California.

Q. About when were these hoods made?

A. About eighteen or twenty years ago. [142—121]

Q. Will you tell us, please, by what method the sections of these horns are joined together?

A. With what we call a lap seam and soldered.

Q. Did you ever make hoods similar to these two which had their sections joined together by any other method than lapped seam?

A. Yes, sir. By a lock seam.

Q. If you remember, will you tell us about when you made hoods similar to these we are now ex-

(Deposition of William J. Noble.)

aming with locked seams?

A. About eighteen or twenty years ago.

Q. How long did you continue making hoods with the locked seams? A. About six months.

Q. Will you tell us why their manufacture was continued for six months?

A. Too expensive. They took too long.

Q. Mr. Noble, I notice that not only all the horns which you produced this morning, but also "Defendant's Exhibit Victor Tea Tray Horn" and "Defendant's Exhibit Tea Tray 20-inch Brass Horn," are made in sections, ranging all the way from two sections to eight sections. Can you tell me any reason, from the standpoint of a practical metal and tin worker, why these horns and hoods should be made in sections rather than in one piece?

A. To save material and make them stiffer.

Q. Saving material means lessening the cost of making, does it not? A. It does.

Q. In your answer to Q. 9 you mentioned, among the articles manufactured by T. M. Brady during your connection with him, phonograph horns. Will you please tell us [143—122] when such horns were manufactured? Describe them, giving at the same time all the facts you may now recall relating to their manufacture.

A. About twelve years ago we made one, about five foot six long and about twenty-four inches wide; about fifteen years ago we made two about sixteen inches by twenty-four as near as I can recollect now.

Q. Can you remember how you came to make these horns?

(Deposition of William J. Noble.)

A. A customer came in and ordered them.

Q. Do you know the customer's name?

A. No, sir.

Q. Did the customer tell you how he wanted the horns made?      A. Yes, sir.

Q. Tell us the directions he gave you as nearly as you can remember them.

A. He wanted them to run from a half inch hole to about sixteen inches; the other one from about one-half inch to twenty-four.

Q. Now, referring to the horns you made, about fifteen years ago, the dimensions of which you have testified, if I understand you, were half inch in diameter in the small end, sixteen inches in diameter at the large end and twenty-four inches long, will you tell us whether or not the person who ordered these horns told you what he wanted to use them for?

A. Yes.

Q. What did he tell you he wanted to use them for?      A. Phonograph.

Q. Do you recall whether or not these two horns were made in sections?      A. Yes, sir.

Q. Please tell us, then.      [144—123]

A. Two sections.

Q. If you remember, will you tell us how these sections were joined together?

A. Locked together the same as that horn there (referring to "Defendant's Exhibit Tea Tray 20-inch Brass Horn").

Q. Examining the horns the defendant has in evidence as well as the hoods which you produced this

(Deposition of William J. Noble.)

morning, will you please tell us whether or not these horns which you have testified you made about fifteen years ago were similar in form, and as to the method of joining the sections to any of the horns and hoods I now call your attention to?     A. Yes, sir.

Q. Will you please indicate which of the horns or hoods which you are now examining these two horns you made fifteen years ago most nearly approached in form?

A. The brass horn marked "Defendant's Exhibit Tea Tray 20-inch Brass Horn" and "Defendant's Exhibit Brady Hood No. 1 for Identification."

Q. Were the sections of the two horns you made fifteen years ago joined together by seams similar to those in the exhibits you have just referred to?

A. Yes, sir.

Q. Of how many sections was the five foot six horn made if of more than one?     A. Four.

Q. Tell us how these sections were joined together.

A. Locked together.

Q. I show you a model tin photograph horn and ask you to tell us whether or not, so far as the method of joining its sections together and so far as its general form and structure goes, excluding size, it is similar to [145—124] the two horns you have testified to making about fifteen years ago and the five foot horn you have testified you made about twelve years ago?     A. Yes, sir.

Q. Calling your attention both to the hoods which you produced this morning and which have been marked for identification and also to "Defendant's

(Deposition of William J. Noble.)

Exhibit Victor Tea Tray Horn” and “Defendant’s Exhibit Tea Tray 20-inch Brass Horn,” as well as the model horn just marked for identification, you will notice on each of the hoods and horns I have just mentioned at the seams or places where the sections are joined, that on some the seams are flush on the inside and on others the material at the said seams or joints is slightly raised on both inside and outside; will you please account for this difference in treatment and tell us any reasons or advantages for the different methods if any there be?

A. That depends on the tool or machine you have to make it with. You can have a seam on the inside or a seam on the outside, or both ways, part out and part in. The quickest way is to have the lock on the outside.

Q. During your experience as practical metal and tin worker, have you ever made lock seams flush on the outside, the excess material being gathered on the inside? A. Yes.

Direct examination closed.

No cross-examination.

Mr. ACKER.—I will next read the deposition of James Connelly. [146—125]

**[Deposition of James Connelly, for Defendant.]**

JAMES CONNELLY, a witness produced on behalf of the defendant, first being duly sworn, testified as follows:

Q. Please state your name, age, residence and occupation.

A. James Connelly, 52; Beaver Street, New

(Deposition of James Connelly.)

Britain, Connecticut; tinsmith.

Q. How long have you been a tinsmith?

A. About thirty-eight years.

Q. By whom are you now employed?

A. T. H. Brady, New Britain, Conn.

Q. How long have you been employed by T. H. Brady?     A. Thirty-eight years.

Q. During the time that you have worked for Mr. Brady what kind of articles have you made or helped make?

A. Stove-pipes, boilers, pails, electric light hoods, and I made some graphophone tubes.

Q. What do you mean by graphophone tubes?

A. I mean a horn put in two parts.

Q. Will you tell us some of the various ways of joining together pieces of tin or metal used by tinsmiths?     A. Well, we put together with a lap lock.

Q. Now, that is one, are there any more?

A. I don't know any others.

Q. Will you please describe what you mean by a lap lock?

A. It is turned and locked together, one opposite to the other on the same piece.

Q. How would you describe joining together two pieces of tin where part of one piece overlaps part of the other with a little solder put between the pieces?

A. I would say it was a lap lock. [147—126]

Q. Well, how would you describe putting together two pieces of tin or other metal where the edges of each piece are turned in opposite directions? By

(Deposition of James Connelly.)

that I mean one turning under and the other turning over as in "Defendant's Exhibit Tea Tray Lock Seam Horn Section"?

A. That would be a lap lock. One laps over the other and locks.

Q. Is there any difference in your mind between a lap seam and a lock seam?

A. A lap seam, all you can do is to stick that together with solder.

Q. How about a lock seam?

A. It would lock the seams together.

Q. During the thirty-eight years that you have been employed by T. H. Brady did you ever actually make any phonographs horns? A. I did.

Q. When did you first make such horns?

A. 1891.

Q. Will you please describe the phonographs horns you made in 1891 as to size, material and the kind of seams they had if they had any?

A. Twenty-eight inches long, six inches in diameter on the large end and tapered down to one-half inch on the small end.

Q. Were they made in one piece or in sections?

A. Two pieces.

Q. How were these pieces joined together?

A. They were put together with a lap lock.

Q. I call your attention to "Defendant's Exhibit Brady Hood, No. 1 for Identification," and inquire whether [148—127] or not you ever made hoods like that during the time you worked for Mr. Brady?

A. Yes, sir, I did.

(Deposition of James Connelly.)

Q. Are the sections of this hood joined together by what you have termed a lap lock? A. Yes, sir.

Q. And did the phonograph horns which you have testified you have made in 1891 show a similar method of doing it? A. Yes, sir, they did.

Q. I show you a model phonograph horn marked "Defendant's Exhibit Brady Model Horn for Identification" and inquire whether or not you made that model. Did you make that? A. Yes.

Q. When did you make it? A. Yesterday.

Q. Are the phonograph horns which you testified you made in 1891 like this model horn as far as shape and the way of joining the sections go?

A. They were just the same as that one.

Defendant's counsel offers in evidence the model horn shown the witness which was marked for identification at the hearing this morning and the same is marked "Defendant's Exhibit Brady Model Horn."

Q. How long ago did you first make hoods like "Defendant's Exhibit Brady Hood No. 1 for Identification"? A. I made it about ten years ago.

Q. Were you present at the hearing this morning when Mr. Noble testified about making two phonograph horns [149—128] about fifteen years ago and a large five foot six inch horn about twelve years ago? A. I was.

Q. Did you hear him describe those horns as to their size? A. I did.

Q. Will you please state whether or not you remember of there being made in Mr. Brady's shop about fifteen years ago, two phonograph horns a half

(Deposition of James Connelly.)

an inch in diameter at their small end, sixteen inches in diameter at their large end and twenty-four inches long?     A. Yes, sir, I do.

Q. Did you have anything to do with the making of these horns?

A. No; I know that they were made; that is all.

Q. Were you in the shop at the time they were being made?     A. I was.

Q. Will you please state whether or not you remember of there being made in Mr. Brady's shop about twelve years ago a large phonograph horn five feet six inches long, and about twenty-four inches wide?

A. I know about making it or seeing it being made.

Q. Did you help make that horn?

A. Part of it.

Direct examination closed.

Cross-examination.

(By Mr. MILLER.)

XQ. Does the hoods now before you marked "Defendant's Exhibit Brady's Hood No. 2 for Identification" have what you termed a lap lock seam?

A. That's a lap lock soldered seam.

XQ. What is the name of Mr. Brady's Company for whom you work?     A. T. H. Brady. [150—129]

XQ. Is he the proprietor of the concern?

A. Yes.

XQ. Then I understand that you work for him as a tinsmith for daily wages?     A. Yes, sir.

XQ. What kind of work are you working on now

(Testimony of James Connelly.)

in the Brady shop?

A. Hoods—anything that comes along.

XQ. Is Brady engaged at the present time in making phonograph horns?

A. If anyone comes in and orders one, he makes it.

XQ. When did you make the last one?

A. About twelve years ago.

XQ. Then he is not in the regular business of making phonograph horns at the present time, is he?

A. No, sir.

Cross-examination closed.

**[Testimony of T. H. Brady, for Defendant.]**

It is hereby stipulated between counsel that if T. H. BRADY, a witness named in defendant's NOTICE OF TAKING TESTIMONY were examined, he would testify substantially as follows:

My name is T. H. Brady. I am over the age of 21 years and reside at New Britain, Connecticut, where I have been engaged in the manufacture of tinware, electric light hoods and numerous other tin and metal articles for over forty years under the name or style of T. H. Brady.

In the tin and metal business pieces of tin and metal are joined together in various ways, those most commonly and generally used are known as lap seaming; flanging and lock seaming. By lock seaming I mean joining [151—130] tin or other metal pieces by turning the longitudinal edges of each piece in opposite directions, one outwardly or up and the other inwardly or down; the inwardly or downward turned edge of one piece being locked or fitted into

(Testimony of T. H. Brady.)

the upwardly or outwardly turned edge of a contiguous piece, pressure being then applied to make contact throughout the adjoining surfaces. This method has been commonly used during my entire connection with the tin or metal trade. I have employed it in my business in making electric light hoods, elbows, stove-pipes, funnels and other tin articles as well as phonograph horns. Early in the '90's I had made in my shops the three phonograph horns referred to by the witness Noble made in two sections joined together with this locked seam. The persons who ordered these horns are unknown to me. The horns, however, in shape and so far as the methods of joining their sections were similar in all respects to "Defendant's Exhibit Brady Model Horn," and the longitudinal seams were the same as the longitudinal seams of "Defendant's Exhibit Tea Tray 20-inch Brass Horn" and "Defendant's Exhibit Victor Tea Tray Horn."

There were also made in my shops eighteen or twenty years ago many electric light hoods like "Defendant's Exhibit Brady Hoods, No. 2 for Identification," and the same were widely distributed. The last named exhibit is of my manufacture. Such hoods for a short while at the beginning of their manufacture, were made with lock seams; this seam, however, was given up after a six months' trial because it was too expensive. There were also made at my shops, about ten or twelve years ago "Defendant's Exhibit Brady Hood No. 1 for Identification"

(Testimony of T. H. Brady.)

as well as many like it. These hoods have these lock seams. [152—131]

Lock seams can be made having the extra material caused by the joining or locking of the edges of the various sections disposed of either on the outside, the inside or partly on one side and partly on the other, solely depending upon the tools or machinery used; where this material is disposed of or placed does not affect the strength of the article. The sections of "Defendant's Exhibit Victor Tea Tray Horn" have not longitudinal outwardly directed flanges.

Hoods and horns are commonly made in sections to economize in material and to add strength to such articles. Defendant's counsel offers in evidence the hoods marked for identification during the deposition of the witness Noble and the same are marked respectively "Defendant's Exhibit Brady Hood No. 1" and "Defendant's Exhibit Brady Hood No. 2."

It is further stipulated that plaintiff's counsel objects to each of the foregoing statements of the witness Brady and to each of said exhibits offered at the conclusion of his examination as irrelevant, incompetent and immaterial; as relating to a defense not pleaded or noticed in accordance with the statute.

Defendant's counsel calls attention to the NOTICE OF SPECIAL MATTER filed by defendants therein, particularly to page 4 thereof, where articles of T. H. Brady's manufacture are specifically mentioned.

Adjourned subject to agreement of counsel.  
[153—132]

Mr. ACKER.—That constitutes the depositions that have been heretofore taken in the case. I now wish to read at time before placing a witness on the stand the file-wrapper of the application for the letters patent in suit. I would also like to read the original specifications in connection with the file-wrapper, if your Honor will spare the time.

**Petition [of Peter C. Nielsen for Letters Patent].**

To the Commissioner of Patents:

Your petitioner, PETER C. NIELSEN, a citizen of the United States and residing at Greenpoint, in the County of Kings and State of New York and having a post-office address at 23 Drake Ave., Greenpoint, Brooklyn, N. Y., prays that Letters Patent may be granted to him for the improvements in HORNS FOR PHONOGRAPHS AND SIMILAR MACHINES set forth in the annexed specification; and he hereby appoints Edgar Tate and William W. Canfield of the firm of EDGAR TATE & CO., 245 Broadway, New York, or their accredited agent to act as his attorneys to prosecute this application, with power to make alterations and amendments therein, to sign the drawings, to receive the patent, and to transact all business in the Patent Office connected therewith.

PETER C. NIELSEN.

**Specification [of Invention by Peter C. Nielsen, etc.].**

To All Whom it may Concern:

Be it known that I, PETER C. NIELSEN, a citizen of the United States residing at Greenpoint in the County of Kings and State of New York have in-

vented certain new and useful improvements in HORNS FOR PHONOGRAPHS OR SIMILAR MACHINES of which the following is a specification, such as [154—133] will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to the horn of a phonograph or other machine of this class and the object thereof is to provide a horn for machines of this class which will do away with the mechanical, vibratory, and metallic sound usually produced in the operation of such machines, and also produce a full, even and continuous volume of sound in which the articulation is clear, full and distinct.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a side view of my improved phonograph horn;

Fig. 2 an end view thereof;

Fig. 3 an enlarged section on the line 3—3 of Fig. 1; and

Fig. 4 a longitudinal section on the line 4—4 of Fig. 3.

In the practice of my invention, I provide a horn *a* provided at its smaller end with the usual nozzle piece *a2* by means of which connection is made with the machine, and in the form of construction shown a supplemental piece *a3* is employed between the larger or body portion of the horn and the nozzle piece *a2*

but the parts *a3* and *a2* may be formed integrally if desired, and may be constructed in any desired manner.

The main part *a* of the horn is bell-shaped in form and tapers outwardly gradually from the part *a3* to the larger or mouth and *a4*, and this curve or taper is greater or more abrupt adjacent to said larger or mouth end. [155—134]

The body portion of the horn is also composed of a plurality of longitudinal strips *b* which are gradually tapered from one end to the other and which are connected longitudinally so as to form longitudinal ribs *b2*, each of the strips *b* being provided at its opposite edges with a flange *b3*, and these flanges, of the separate strips *b*, are connected to form the ribs *b2*.

The body portion of the horn, or the strips *b* are composed of sheet metal, and it will be observed that the inner wall of the body portion of said horn in cross section is made up of a plurality of short lines forming, substantially, a circle, and it is the construction of the body portion of the horn as hereinbefore described, that gives thereto the qualities which it is the object of this invention to produce, which objects are the result of the formation of the horn, or the body portion thereof of longitudinal strips *b* and providing the outer surface thereof with the longitudinal ribs *b2*, and curving the body portion of the horn in the manner described.

If desired, the part *a3* may be formed integrally with the body portion of the horn in which event the ribs *b2* would extend to the nozzle or connecting portion *a2*, and it is the longitudinal ribs *b2* which con-

tribute mostly to the successful operation of the horn, said rib serving to do away with the vibratory character of horns of this class as usually made and doing away with the metallic sound produced in the operation thereof.

My improved horn may be used in connection with phonographs, or other machines of this class, and changes in and modifications of the construction described may be made *with* departing from the spirit of my invention or sacrificing its advantages.  
[156—135]

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A horn for phonographs and similar machines, the body portion of which is composed of longitudinally arranged strips of metal provided at their edges with longitudinal outwardly directed flanges whereby said strips are connected and whereby, the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs, substantially as shown and described.

2. A horn for phonographs and similar machines, the body portion of which is composed of longitudinally arranged strips of metal provided at their edges with longitudinal outwardly directed flanges whereby said strips are connected and whereby, the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs, said strips being tapered from one end of said horn to the other, substantially as shown and described.

3. A horn for phonographs and similar machines, said horn being tapered

8/26/04 in the usual manner and the body thereof on the outer side thereof being provided with longitudinally arranged ribs, substantially as shown and described.

Insert A.

IN TESTIMONY that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 13th day of April, 1904.

PETER C. NIELSEN.

Witnesses:

F. A. STEWART.

C. J. KLEIN. [157—136]

OATH.

State of New York,  
County of New York,—ss.

Peter C. Nielsen, the above-named petitioner, being duly sworn, deposes and says that he is a citizen of the United States and resident of Greenpoint in the County of Kings, and State of New York; that he verily believes himself to be the original, first and sole inventor of the improvements in HORNS FOR PHONOGRAPHS AND SIMILAR MACHINES described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used prior to his invention thereof, or patented or described in any printed publication in the United States of America or any country foreign thereto before his invention thereof; or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; and that no application for a patent has been filed by him or his

legal representatives or assigns in any country foreign to the United States.

PETER C. NIELSEN.

Sworn to and subscribed before me this 13th day of April, 1904.

[Notarial Seal]

W. W. CANFIELD,  
Notary Public.

DEPARTMENT OF THE INTERIOR  
UNITED STATES PATENT OFFICE.

Washington, D. C. May 13, 1904.

Mailed

“ “ “

Peter C. Nielsen,

Care Edgar Tate & Co.,

#245 Broadway,

New York, N. Y. [158—137]

Please find below a communication from the EXAMINER in charge of your application.

For Horn for Phonograph & Similar Machines, filed April 14, 1904, serial number 203,080.

F. I. ALLEN,

Commissioner of Patents.

Claim 3 of this application is rejected in view of Tourtels Eng. Pat. #20,557 of 1902, Graphophones, and U. S. Patent of Fallows, Aug. 15, 1876, #181,159, Games and Toys, Toys, Sounding, it being held that it would not constitute patentable invention to provide a horn with longitudinal ribs, in view of the transverse ribs of Fallow's and the longitudinal rib of Tourtel.

J. T. NEWTON, Ex.

J. H. L.

MAIL ROOM

No. 2

JUN 7 1904

Amdt. A

U. S. PATENT OFFICE.

6/7/04

IN THE UNITED STATES PATENT OFFICE.

ROOM #379.

In re Application of PETER C. NIELSEN,

Horn for Phonographs and Similar Machines,

Filed April 14, 1904. Ser. #203,080.

To the Commissioner of Patents,

Sir:—

We desire to amend the above entitled case as follows:—

Add the following claim.

4. A horn for phonographs and similar machines, said horn being tapered in the usual manner and the body thereof on the outer side thereof being provided with longitudinally [159—138] arranged ribs between which the longitudinal parts of the horn taper from one end to the other, substantially as shown and described.

#### REMARKS.

This amendment is made in view of the Official communication of May 13. The references cited in this case do not show a horn for talking machines having longitudinally arranged ribs on the outer side thereof. One of the references cited shows spirally arranged ribs, but this in no sense anticipates applicant's invention. This arrangement of the ribs would make the horn vibrate more and cause more of a metallic sound than if no ribs at all were formed

on it. It is the longitudinally arranged ribs on the outer side of the horn which produce the result claimed by applicant, and favorable action is respectfully requested.

Respectfully submitted.

EDGAR TATE & CO.,

Attorneys for Applicant.

Dated New York, June 6, 1904.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C. June 22, 1904.

Mailed “ “ “

Peter C. Nielsen,

Care Edgar Tate & Co.,

#245 Broadway,

New York, N. Y.

Please find below a communication from the EXAMINER in charge of your application.

For Horn for Phonographs and Similar Machines, filed April 14, 1904, serial number 203,080.

F. I. ALLEN,

Commissioner of Patents. [160—139]

This action is in response to the amendment filed the 7th instant.

Claims 3 and 4 are rejected in view of the patent of Clayton, Oct. 18, 1898, #612,639, (181-25), the part “A” in said patent being considered the equivalent of applicant’s horn as defined in claims 3 and 4 though said part “A” be more flaring than applicant’s horn.

J. T. NEWTON, Ex.

J. H. L.

MAIL ROOM

No. 4

JUN 22 1904

Amdt. B

U. S. PATENT OFFICE.

6/22/04

IN THE UNITED STATES PATENT OFFICE.

ROOM 379.

In the Matter of the Application of PETER C.  
NIELSEN,

Horn for Phonographs and Similar Machines,

Filed April 14, 1904, Ser. No. 203080.

Hon. Commissioner of Patents,

Washington, D. C.

Sir:—

We desire to amend the above entitled case as follows:

Add the following claim:—

5. A horn for phonographic and similar instruments said horn being larger at

B one end than the other and being com-

8/26/04 posed of longitudinal tapered strips which are secured together at their edges, substantially as shown and described.

Insert C.

#### REMARKS.

This amendment is supplemental to that dated June 6th, 1904, and it is respectfully requested that said amendment [161—140] be entered and the case considered in view thereof.

Respectfully submitted,

EDGAR TATE & CO.,

Attorneys for Applicant.

Dated New York June 21, 1904.

MAIL ROOM

No. 5

JUN 29 1904

Amdt. C

U. S. PATENT OFFICE.

6/29/04

IN THE UNITED STATES PATENT OFFICE

ROOM #379.

In re Application of PETER C. NIELSEN,  
Horn for Phonographs and Similar Instruments,  
Filed April 14, 1904. Ser. No. 203,080.

To the Commissioner of Patents,

Sir:—

We desire to amend the above entitled case as follows:

36. A horn for phonographs and similar instruments, said horn being larger at one end than at the other and tapered in the usual manner, said horn C being composed of longitudinally arranged strips secured together at their edges and the outer side thereof at the points where said strips are secured together being provided with longitudinal ribs, substantially as shown and described.

## REMARKS.

This amendment is made in view of the Official communication of June 22nd. We have carefully considered Clayton the new reference cited, and we do not see any similarity therein to applicant's device either in construction or operation. The object of applicant's construction is to destroy the vibratory character of the phonographic horn, and this cannot be done by corrugating the horn as all forms of corrugations [162—141] increase the vibration instead of diminishing it. This act ought to be apparent on its face and there is nothing in the

references that meet claims 3 and 4 and favorable action thereon as well as on claim 6 presented herewith is requested.

Respectfully submitted,

EDGAR TATE & CO.,

Attorneys for Applicant.

Dated New York June 28, 1904.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

Washington, D. C., July 21, 1904.

Mailed “ “ “

Peter C. Nielsen,

Care Edgar Tate & Co.,

#245 Broadway,

New York, N. Y.

Please find below a communication from the EXAMINER in charge of your application.

For Horn for phonographs and Similar Machines, filed April 14, 1904, serial number 203,080.

F. I. ALLEN,

Commissioner of Patents.

This action is in response to the amendments filed the 22nd and 29th instants.

It is believed that it cannot constitute patentable invention to provide any horn with longitudinal stiffening ribs to render the horn perhaps less vibratory. Claims 3, 4 and 5 are held to be devoid of patentable novelty and invention in view of this holding and the prior art exhibited by the patents cited and the patent of Osten et al., July 22, 1902, #705,126, (181-27).

J. T. NEWTON, Ex.

MAIL ROOM

No. 7

JUL 27 1904.

Argument

U. S. PATENT OFFICE.

7/27/04

IN THE UNITED STATES PATENT OFFICE.

ROOM 379.

In the Matter of the Application of PETER C.  
NIELSEN,

Horn for Phonographs and Similar Machines,

Filed April 14, 1904, Ser. No. 203080.

Hon. Commissioner of Patents,

Washington, D. C.

Sir:—

The Official communication of July 21st has been received and considered. This communication states that "It is believed that it cannot constitute patentable invention to provide any horn with longitudinal stiffening ribs to render the horn perhaps less vibratory," and Claims 3, 4 and 5 are rejected. We do not understand what bearing if any this statement has on Claim 5 and an explanation is requested before further amendment of the case.

Respectfully submitted,

EDGAR TATE & CO.,

Attorneys for Applicant.

Dated New York July 26, 1904.

DEPARTMENT OF THE INTERIOR

UNITED STATES PATENT OFFICE.

Washington, D. C., August 5, 1904.

Peter C. Nielsen,

c/o Edgar Tate & Co.,

Mailed Aug. 5/04.

New York City. [164—143]

Please find below a communication from the EX-

AMINER in charge of your application.

Serial No. 203,080, filed April 14, 1904, for Horn for Phonographs and Similar Machines.

F. I. ALLEN,

Commissioner of Patents.

This action is responsive to letter filed the 27th ultimo.

Claims 3 and 4 are rejected in view of the holding that it cannot constitute patentable invention to provide any horn with longitudinal stiffening ribs to render the horn perhaps less vibratory. These claims and claim 5 are rejected also in view of the patents cited and the patent of Osten *et al.* referred to in the last action.

J. T. NEWTON,

Ex.

J. H. L.

No. 9

U. S. PATENT OFFICE

Asso-Power.

RECEIVED

AUG 17 1904.

Division 23.

IN THE UNITED STATES PATENT OFFICE.

Room 379.

In the Matter of the Application of PETER C.  
NIELSEN,

Horn for Phonographs and Similar Machines,

Filed April 14, 1904, Ser. No. 203080.

Hon. Commissioner of Patents,

Washington, D. C.

Sir:—

We hereby appoint William N. Cromwell 1003 F

Street [165—144] N. W. Washington, D. C., our  
associate attorney in the above entitled case.

Respectfully submitted,

EDGAR TATE & CO.,

Attorneys for Applicant.

Dated New York, Aug. 16, 1904.

No. 10

U. S. PATENT OFFICE

RECEIVED

AUG 26 1904.

DIVISION 23.

IN THE UNITED STATES PATENT OFFICE.

In re Application of PETER C. NIELSEN,

Horn for Phonographs and Similar Machines,

Filed April 14, 1904, Serial No. 203,080.

Before the Examiner, Room 379.

Hon. Commissioner of Patents,

Sir:—

The above-entitled application is hereby amended  
as follows:

Cancel claims 3, 4 and 5.

#### REMARKS.

The above amendment places this case in condi-  
tion for allowance, and such action is respectfully  
requested at an early date.

Very respectfully,

W. N. CROMWELL,

Associate Attorney. [166—145]

The COURT.—That seems to disclose that the  
Patent Office considered that the novelty did not re-  
side in the providing of longitudinal ribs.

Mr. ACKER.—Yes.

**[Testimony of William H. Smyth, for Defendant.]**

WILLIAM H. SMYTH, called, sworn and examined as a witness on behalf of the defendant.

Direct Examination.

Mr. ACKER.—Q. Please state your name, age, residence and occupation.

A. William H. Smyth; age, over fifty years; occupation, mechanical engineer and inventor; residence, Berkeley.

Q. Please state what experience you have had in connection with mechanical devices and machinery and metal working devices.

The COURT.—I suppose it will be admitted, will it not, that Mr. Smyth is a competent man in subjects of this kind?

Mr. MILLER.—Yes.

Mr. ACKER.—Q. State what experience you have had in connection with the manufacture of sheet metal devices.

A. I was one of the earliest inventors in the can making art, beginning away back in 1882. I got up a line of can-making machinery involving the complete construction of a can from the tin to the completed can during that time, which went from about 1882 to 1900, I think, or 1902, I invented a large number of devices of that character, and in the early part of it at the University of California I made a series of tests on cans and joints on cans, and the various forms of joints used in can-making. That series of tests, I think, was the first of the set of tests being

(Testimony of William H. Smyth.)

made. I think that covers the question, Mr. Acker.  
[167—146]

Q. Have you read and do you understand the letters patent in suit? A. I have and do.

Q. I will ask you to look at the drawing enlargement appearing on the blackboard and ask you to state if the sketch that is marked thereon discloses or represents Figures 1 and 3 of the patent in suit.

A. The circular looking sketch represents Figures 3 and the other form of sketch is that of Figure 1 of the patent.

Q. With that enlargement before you of Figures 1 and 2 of the patent in suit, I will ask you to explain from the patent specifications what form of device is disclosed by the patent in suit.

A. It is a horn for amplifying the sound coming from a phonograph of a particular construction, in which the segments are connected longitudinally by flanged joints. That is to say, a portion of the metal forming the sections along their edges is turned up substantially at a right angle and these two turned up edges brought contiguous to each other and joined by any suitable means. At this point I would like to put on the blackboard a series of sketches.

The COURT.—Just confine yourself to answering questions that are asked of you, and whenever it is necessary to illustrate you can use the blackboard. I would not suggest anything.

Mr. ACKER.—Q. How are the sections of the horn of the patent in suit united or joined together?

A. The patent does not disclose how they are joined

(Testimony of William H. Smyth.)

together. The flanges are brought adjacent to each other and presumably are soldered.

Q. And so brought together and soldered, what do they form? A. They form a flange or rib.

Q. Is that the rib which is referred to in the patent in suit? A. Yes. [168—147]

Mr. MILLER.—I object to that, is that the rib referred to in the patent in suit. That may be a question of law as to what is the rib there. He can point out what he designated as the rib in the patent, but this is going beyond that point of examination to show the rib called for by the patent. It is for the Court to say what is the rib called for by the patent.

The COURT.—I do not see why he cannot express his judgment about it. He is here as an expert. He is here as an expert upon the facts, it is true, and not as to the law, but I do not see any objection to his stating what, in his judgment, that constitutes under the patent.

(The reporter read the question.)

Mr. MILLER.—I object to it on the further ground that it is leading and suggestive.

The COURT.—Avoid that form of question with your witness.

Mr. ACKER.—Q. With the patent in suit before you, with reference to the enlarged drawing on the blackboard, please explain how the ribs referred to in the patent are constituted and formed.

A. In answering that question I will read from the specifications: "The body portion of the horn is also

(Testimony of William H. Smyth.)

composed of a plurality of longitudinal strips B, which are gradually tapered from one end to the other, and which are connected longitudinally so as to form longitudinal ribs B2, each of the strips — ”

The COURT.—I must protest against this method of allowing the witness to answer that question. This patent has been read and re-read to this jury, and I cannot have time taken up in simply reciting repeatedly that portion of this patent. Just answer the question with reference to the patent. [169—148]

(The reporter read the question.)

The COURT.—He is not asking you to read any portion of the patent. You have stated that you are familiar with the patent and such devices as are described in the patent. He is asking you with the patent before you, to describe to the jury how that drawing upon the blackboard is constructed.

A. The segments are first got into shape and then the edges turned up substantially at right angles.

Mr. ACKER.—Q. Is it the right-angled portion or the turned up portion that you refer to that forms the rib of the patent in suit?

Mr. MILLER.—I object to the question as leading.

The COURT.—It has already been answered once, if not twice.

Mr. ACKER.—Please examine Claim 2 of letters patent in suit, Mr. Smyth, and state what form of device is disclosed thereby.

Mr. MILLER.—That goes to the whole case right there. This witness nor any other witness has any-

(Testimony of William H. Smyth.)

thing to do with the claims of the patent. That is solely for the Court. The claim is a matter of law and the specifications are a matter of fact. The witness can describe what he sees in the specifications because that is a matter of fact and he can show the mechanical construction.

The COURT.—Please read the question.

(The reporter read the question.)

Mr. ACKER.—This patent is addressed to those who are skilled in the art. We claim that we have a right to ask and find out from this witness or any other witness what form of device is disclosed by the claim of the patent.

The COURT.—I think so. [170—149]

Mr. MILLER.—I note an exception to your Honor's ruling.

A. The claim describes a horn for phonographs which is formed of longitudinally arranged strips of metal, the edges of which are outwardly directed in the shape of flanges and these flanges are connected in such a manner as to provide the horn on its outside with longitudinally arranged ribs. That is to say, two of the flanges coming together constitute the ribs. These strips of which the horn is composed are tapering from one end to the other in a manner described in the body of the specifications.

Mr. ACKER.—Q. I ask you to examine Claim 3 of the patent and state what form of device is disclosed by said claim.

Mr. MILLER.—I make the same objection to that question that I made to the other. [171—150]

(Testimony of William H. Smyth.)

The COURT.—Same ruling.

A. Claim 3 describes a horn for phonographs and similar instruments, and that horn is larger at one end than the other, and the horn is tapered in the usual manner, whatever that usual manner was prior to the date of this invention; and this tapering horn is composed of longitudinal strips which are secured together at their edges and outer sides and at the point where the strips are secured together they are provided with longitudinal ribs substantially like the ribs shown in the body—in the drawings and described in the body of the specifications.

The COURT.—Q. On the outer side of the instrument?

A. Yes.

The COURT.—That is simply repeating the claims of the patent.

Mr. ACKER.—Q. With the patent before you, please examine Plaintiff's Exhibit 9, 12 and 13 and state such similarity or differences as you may find to exist between the device of the patent in suit and the exhibit before you.

A. Taking up exhibit 9, in the first instance, that is made in accordance with the description of the horn given in the specifications and in those claims that I have just referred to, Claims 2 and 3, in that it is made—

Mr. MILLER.—I move to strike out the last part of that answer, that it is made in accordance with the claims of the patent.

The COURT.—Let that go out. You are intrench-

(Testimony of William H. Smyth.)

ing upon the law. You can state how it is constructed. State to the jury how that instrument is constructed.

A. It is constructed in accordance with the description of the specifications in that it is made up of a plurality or multiplicity of tapering strips, each of which is turned up at [172—151] its edge to form a flange on the tapering edges of those strips and these flanges are then brought together and joined so that the two flanges together project outwardly and form a rib, a stiffening rib on the outside of the assembled tapering strips forming the horn. With regard to Exhibit 12, this device is not made in accordance with the description of the patent in that it is not provided with flanges which project outwardly, and which flanges are joined together to form ribs, but on the contrary the tapering strips are joined together by a lock seam, old in the art, which does not form the flanged ribs extending outwardly.

Mr. MILLER.—I move to strike out that answer on *the that it* is intrenching on the law. He has not stated how that horn was constructed any more than in general language that it is not constructed in accordance with the patent.

The COURT.—Let it go out. You are intrenching on the province of the Court. You can state technically how that instrument is constructed and the jury will determine under instructions from the Court whether it is in accordance with the call of the patent.

Mr. ACKER.—Q. Describe the construction of

(Testimony of William H. Smyth.)

that horn and state how it differs from the previous exhibit in construction.

The COURT.—You are not called upon to interpret this patent to the jury.

A. It differs in respect to the method of joining the tapering sections together in that it is a flat lock seam and is not turned up at right angles or at substantially right angles. It is not turned outwardly in the form of flanges as is the previous exhibit to form outwardly projecting ribs. The term “flange,” in the first place, is a mechanical term descriptive of a projecting member almost invariably at right angles to the body portion forming a connection, as, for example, the flange [173—152] of a cylinder of an engine to which the head is bolted, and all the other character of stiffening flanges such as an eye-beam, the flange of an eye-beam. It is a clearly understood term. A flange is a flat connecting projection member for the purpose of joining other pieces to it. In this respect these two horns differ in their construction, the one having an outwardly projecting flange and the other not having those flanges.

Mr. MILLER.—I move to strike out that answer on the ground that it is not in accordance with the instructions that have been given to the witness, and furthermore it is not responsive in large part to the question which was asked of the witness.

The COURT.—The latter part of the answer is a volunteer statement on the part of the witness. Just answer the question that is asked of you and stop there. That part of what a flange is may go out.

(Testimony of William H. Smyth.)

The question was answered before that.

Mr. MILLER.—Yes.

The COURT.—The first part of the answer will stand. That volunteer statement as to what a flange is will go out.

Mr. ACKER.—Q. I asked you to make a comparison likewise of exhibit 12.

Mr. MILLER.—I want the witness to describe the construction of that instrument that he has there.

Mr. ACKER.—My question is for the witness to examine exhibit 12 and compare the same with the exhibit of the patent in suit and state the differences and similarities as he finds them to exist between the two.

Mr. MILLER.—That was not the question that was asked.

The COURT.—That seems to be within the province of the witness. [174—153]

Mr. MILLER.—I do not object to that. If the witness will confine himself to answering that question I will have no objection to it.

The COURT.—That, I understand, is the exhibit of the patent in suit?

Mr. ACKER.—Yes.

The COURT.—He asks you to examine exhibit 12 and state what similarities or dissimilarities exist between these instruments and that of the exhibit of the patent.

A. The similarities, of course, are obvious in that they are both horns formed of tapering strips which are joined at their outer edges, and the differences

(Testimony of William H. Smyth.)

consist in the manner of joining these edges. In one case, that is the exhibit of the patent, Plaintiff's Exhibit No. 9, the joining consists of outwardly turned flanges substantially at right angles and these brought in contact with each other and are connected, whereas the joint of exhibit 14 does not have the outwardly turned flanges—

Mr. MILLER.—I object to that.

The COURT.—The jury will say what the differences are and you may state to the jury what the construction is.

The WITNESS.—I am trying to fight shy of any objection. The horn exhibit 14, as I have already stated, is similar to the other one in the fact that it is composed of tapering strips joined at their edges, but it is joined by means of interlocking the metal, and that interlocking constitute the means of connecting the sections together.

Mr. ACKER.—Q. What is the form of the joint union between the strips constituting the horn of exhibit 14? A. It is a lock seam joint.

Q. What is the form of the joint in the connections between the horn of exhibit 9?

A. It is a flange joint.

Q. What is the distinction between a flange joint and a lock seam joint?

A. The one difference is that [175—154] the flange joint necessarily requires some additional attaching means, solder, bolt or rivets or such other matter, whereas the other is a self-locking joint which does not require anything additional. Fur-

(Testimony of William H. Smyth.)

thermore, the flange is a stiffening member, giving rigidity to the structure on which it is placed and the other is not necessarily a stiffening member, but it does add some rigidity to it, but that is merely incidental.

Q. What distinction do you make between seam and rib in connection with devices of this character?

A. A seam is a means of attachment, not necessarily a rib. A rib is a projection above the surface forming a stiffening member. The mere lapping of one sheet upon another is one form of attachment and that is the lap seam, but that would not be in any sense a rib.

Q. Have you examined and are you familiar with the devices introduced as exhibits on behalf of the defendant as showing the prior state of the art?

A. I have.

Q. Please compare the device that you find disclosed by the patent in suit with the devices of the prior art and state such differences and similarities as you may find existing between the device of the patent in suit and the devices of the prior art.

Mr. MILLER.—I object to that question as incompetent. He is intrenching again upon the function of the Court.

The COURT.—In what respect?

Mr. MILLER.—He is asked to describe what is called for by the patent and what is shown by the prior state of the art. If he is shown any device of the prior art that is around here he can tell how that is constructed, what its physical characteristics are,

(Testimony of William H. Smyth.)

but it is for some other power to say what the conclusion is that is to be drawn from that. I do not want this witness to have carte blanche to make a long [176—155] dissertation on everything that is in this case what I cannot stop him.

The COURT.—The witness will be confined to describing the mechanism of any of these devices that are shown to him in the prior art, and the jury will say whether they are such as to show an anticipation here under the instructions of the Court.

Mr. MILLER.—May I be allowed to interrupt him when I think he is going beyond that?

The COURT.—I am virtually sustaining the objection that you made to the form of that question.

Mr. ACKER.—I want to shorten this case.

The COURT.—But that is not a proper way or method of examining the witness. The jury will draw the distinctions between the devices, and it is simply for the witness to give a description of the constructions of those different devices.

Mr. ACKER.—I thought that was the way in which the question was formed. That is the evidence I want to get before this jury.

Q. With the patent in suit before you, will you please compare the device therein disclosed with the devices which you find in Defendant's Exhibit Tea Tray Horn No. 20 and state such differences and similarities as you find existing between the two.

Mr. MILLER.—I must object to that form of question. Just ask him to describe the construction of what he has in his hand there then it is for the jury

(Testimony of William H. Smyth.)

to say what the differences and similarities are.

The COURT.—Mr. Acker, I shall have to sustain the *object* to the form of your question. You can preserve your exception, but I rule that the witness must confine himself to describing in a mechanical way, in a scientific way, the construction of the devices described in any of these previous [177—156] patents. The jury will say whether they are an anticipation. It is not for the witness to say whether they are anticipations or not.

Mr. ACKER.—Do I understand for one moment that you mean that this witness is not permitted to point out the differences and similarities which exist?

The COURT.—You understand me to say precisely what I say. I am saying precisely what my language imports, and that is that this witness will be permitted as an expert to explain the construction of these different devices covered by these alleged anticipating patents.

Mr. ACKER.—Do I understand that the objection to the question is sustained?

The COURT.—Objection sustained.

Mr. ACKER.—I note an exception.

#### **Defendant's Exception No. 4.**

To which ruling of the Court the defendant, by its counsel, duly excepted and hereby tenders this its bill of exceptions for the Court to sign and seal, and the Court does hereby sign and seal the same.

Q. Please examine the Defendant's Exhibit Tea Tray 20-inch Horn and state the device which is dis-

(Testimony of William H. Smyth.)

closed thereby and the construction of that device, how it is formed and how the parts going to constitute the body of the horn are united and joined together.

A. This horn is constructed of two tapering sections or segments which are united at their longitudinal edges by a lock seam, and in that respect resemble the device of the patent, in that it is made of a multiplicity of tapering segments and it differs from the device of the patent in that it has the lock seam, whereas that of the patent has the flanged sections which constitute the joint. [178—157]

Mr. MILLER.—I call your Honor's attention to the fact that the witness has again departed from the instructions that have been given to him by the Court as to describing the machine that is there.

The COURT.—I do not see in what respect he has departed from the instructions of the Court.

Mr. MILLER.—He says it conforms to the patent in certain ways and it does not conform to the patent in other ways.

The COURT.—He is speaking of the device which has been introduced here as the exhibit of the device in the patent.

Mr. MILLER.—I understood him to say it was different from the patent.

The COURT.—He was comparing it with this device of the patent. Confine yourself to this device.

A. I used the word "device."

Mr. MILLER.—The question did not call for any differences or similarities. It called for the con-

(Testimony of William H. Smyth.)

struction of that instrument.

The COURT.—No matter what you may have in your head and what you would like to say, just confine yourself to answering the questions.

(The reporter read the question.)

Mr. ACKER.—Q. What is the form of the seam joining the plurality of pieces constituting the body of the phonograph Horn, Tea Tray Horn?

A. Lock seam.

Q. How does that form of seam compare with the form of seam disclosed in the Plaintiff's Exhibit 12?

A. This appears to be a lap seam.

The COURT.—That is in exhibit 12?

A. Yes, sir, it simply means that the sheets are laid one on [179—158] top of the other and solder run in between them.

Mr. ACKER.—Q. Please examine Defendant's Exhibit marked for identification "Z" and state the form of the construction of that device.

A. The form of horn is a bell-shaped flaring with an increasing flare from the small diameter to the large diameter. It consists of a multiplicity of tapering segments or sections which are joined at their contiguous edges by a hinge form of joint, that is to say, the metal is formed into a loop with alternate spaces, and the loop of one section fits in between the contiguous loops of the adjacent section, and a rod is run the length of the horn to connect these adjacent sections to each other.

Q. Please examine Defendant's Exhibit "O," the same being United States letters patent No. 734,954,

(Testimony of William H. Smyth.)

granted to G. H. Villy, September 29, 1903, and compare the device you find therein disclosed with the exhibit that you have just been testifying to and state how such exhibit conforms to or differs from the device of the letters patent.

Mr. MILLER.—I object to that question on the same ground that I have interposed to the other questions asked. He can describe to the jury what is delineated in that patent that is handed to him. I object to his going any further than that and stating any conclusions or deductions and conclusions.

The COURT.—He has a right to take that patent and describe to the jury the device that is therein described.

Mr. MILLER.—I do not object to that. If he stops the question right there I have no objection.

The COURT.—From that the jury will say whether that device will constitute an anticipation of the device in suit.

Mr. MILLER.—The question is framed so that the witness may tell what conclusions he draws from that. [180—159]

Mr. ACKER.—Q. The last question asked of your prior to the hour of adjournment yesterday was: "Please examine Defendant's Exhibit 'O,' the same being United States letters patent No. 739,954, granted to G. H. Villy, September 29, 1903, and compare the device you find therein disclosed with the exhibit that you have just been testifying to and state how such exhibit conforms to or differs from the device of the letters patent."

(Testimony of William H. Smyth.)

Mr. MILLER.—I must object to the form of the question. I think the proper way to do is to ask him to describe what he finds delineated in this Villy patent.

The COURT.—He may describe the device that he finds delineated in this patent, and he may furthermore show how far it conforms to or departs from the device of the patent in suit, then the jury will say whether or not it anticipates the device in suit.

Mr. ACKER.—I am asking him to compare it with the defendant's exhibit. I am asking him whether or not the device disclosed in that patent conforms to that.

Mr. MILLER.—That question is wholly incompetent, because it has been decided again and again that it is not competent to compare the defendant's devices with the prior art, because that is not the material question. The question is to compare the plaintiff's devices with the prior art, and show how far the plaintiff's device goes, and after having seen the differences between the plaintiff's device and the prior art, or the similarities between them, then it is for the Court to give the instruction to the jury and then it is for the jury to determine.

The COURT.—What is the question? [181—160]

Mr. MILLER.—To compare the device shown in the Villy patent with the defendant's machine which is charged to be an infringement.

The COURT.—Didn't you put this in evidence?

Mr. MILLER.—No. I understood him to say compare it with this. Which one is it?

(Testimony of William H. Smyth.)

Mr. ACKER.—We ask him to compare it with the model he has in his hands.

The COURT.—You put that in evidence, didn't you?

Mr. MILLER.—I did not put it in evidence at all. It is not in evidence now. It has only been offered for identification. I object to comparing this Villy patent with this machine.

The COURT.—It seems to me that the only proper province of the witness as an expert is to describe the device in suit, the mechanical construction of it to the jury as he interprets it. He is also permitted to describe the device of the alleged anticipating patents to the jury, and distinguish the character of those, or show their similarity with the device of the patent in suit, in order to let the jury determine whether or not they do amount to an anticipation of the device of the patent in suit.

Mr. ACKER.—I have not asked the question as to that, in that way. That will appear later on. I have the right as I understand from the law, to ask this witness to compare the defendant's device on the question of infringement with the devices of the prior art, because if the defendant is making the devices of the prior art the jury has a right to know it.

The COURT.—You have not asked that question.

Mr. ACKER.—No.

The COURT.—We are dealing with what you are asking. [182—161]

Mr. ACKER.—I am asking the witness now whether this horn that has been produced, marked

(Testimony of William H. Smyth.)

for identification, conforms to the disclosure of the Villy patent, and that horn is put in for an anticipation.

The COURT.—This horn is not in evidence yet.

Mr. ACKER.—It will be put in evidence. It has been marked for identification. I will introduce it in evidence.

The COURT.—What is the objection?

Mr. MILLER.—Your Honor will see where that will lead to. Here is a horn which is made of sheet metal, or tin. The device in the Villy patent is made of paper, or wood. Now, he is asking the witness whether this device here, on its face, is made of tin, and which, on its face, is different—he is asking him whether that conforms to the Villy patent. The logical thing to do is to let him take the Villy patent and explain to the jury the mechanical construction which he there finds.

The COURT.—He will not be permitted to say whether it conforms to the Villy patent. He will be permitted to describe its mechanical construction, and the jury will determine whether it conforms to that construction or not.

Mr. MILLER.—That is my objection, exactly.

The COURT.—That is all I am permitting the witness to do. The witness is not here to declare the law to the jury at all. If you will permit the examination to proceed you will find that we will get along without so much delay. This horn better be put in evidence.

Mr. ACKER.—I offer in evidence the horn hereto-

(Testimony of William H. Smyth.)

fore marked for identification exhibit "W" and ask that the same be marked Defendant's Exhibit "T."  
[183—162]

Mr. ACKER.—Q. Answer the question, the horn having been put in evidence.

A. Kindly read the question again.

(The reporter read the question.)

The COURT.—Just take the device described in that patent and describe its mechanical construction to the jury and show how *to* compares with the construction of the device that has just been called to your attention, exhibit "T."

A. Taking the last part of the question first, it does conform with the construction described in the letters patent to Villy.

Mr. MILLER.—I must object to that. He was told first to describe what he found in that patent.

The COURT.—Answer the question in its order, and describe the manner of construction of the device described in the patent to the jury, and they will then be able to say whether or not you are correct in your conclusion.

The WITNESS.—I am trying very hard to keep within the rulings of the Court, but these objections bother me amazingly.

The COURT.—I can't help that.

(The reporter re-read the question.)

A. Then, Mr. Attorney, as I understand your question, the device described in this patent I find to be a horn for phonographs of trumpet-like or curved configuration with an enlarged outer end and smaller

(Testimony of William H. Smyth.)

end at the interior of conoidal like form and the inventor says that he makes it of paper, wood, linen, or other preferably flexible material, and that the angles formed by the meeting of the sections are hinged together when in extended form and there are ribs giving rigidity to the trumpet form. That, I think, is a sufficient description of the device of the patent. [184—163]

Mr. MILLER.—He says he thinks that is a sufficient description of the patent. He has not finished the description of the patent, nor given the fundamental feature of the patent so that the jury can tell what this patent is. He is simply drawing his conclusion. He was asked to describe the physical instrument.

The COURT.—Describe the device embodied in that patent. That is what you were told to do.

A. I have done it.

The COURT.—Do not draw your own conclusions. That is sufficient if you have given a description of the device disclosed in that patent. We do not want your conclusions stated here to bind either the jury or the Court. The jury has to pass upon this case eventually. Dispossess your mind, Mr. Smyth, of the idea that you are testifying to anything here except the mechanical construction of this device. That is your province, because you are admittedly an expert, but the law is not for you, and the eventual determination of the facts is for the jury.

The WITNESS.—Your Honor, that is exactly what I am trying to do, just confine myself to a de-

(Testimony of William H. Smyth.)

scription of the mechanism.

The COURT.—Just pay attention to the question that is asked of you, and conform your answer to that, and then I do not think you will get into any difficulty. If you cannot answer the question, say so.

The WITNESS.—I can do that all right.

The COURT.—Well, then, proceed and do it.

The WITNESS.—Will you kindly read the portion of my answer in which I describe the device?

(The reporter read as requested.) [185—164]

A. (Continuing.) And the function of the hinged ribs, besides giving rigidity to the structure, is to admit of its being collapsed into smaller size for convenience of transportation or otherwise when not in use. I must again ask you to read the question.

Mr. ACKER.—I can *give to* you right here, if that will save time.

A. Answering the last portion of the question I find that the exhibit does conform to the device of the letters patent.

Mr. ACKER.—Q. Please point out what represents in the exhibit model horn and likewise the patent, what are the ribs referred to by the patentee?

The COURT.—You have just been stating your conclusion and you have not illustrated how it conforms in any way. Your own counsel is not satisfied with your answer.

The WITNESS.—I must confess your Honor that I am mixed up as to just what he does want. I followed the question as I read it here. I understood it was to describe this device and say whether it con-

(Testimony of William H. Smyth.)

formed to that patent.

Mr. MILLER.—I will say that I am willing for counsel to answer this question. Please describe the physical structure that you find in the drawings of the Villy patent and described in the specifications so that the jury can understand it.

The COURT.—Let us see what the situation is. You have substantially read from that patent the patentee's description of his device. You have not undertaken to tell us which the question asked of you, how that is physically constructed, its mechanical construction.

A. How a mechanic would make it, or how the physical thing holds together? Let me have the question repeated.

(The reporter read the question.) [186—165]

Mr. MILLER.—I object to that question, because that calls for the conclusion of the witness. He can point out in the patent, if he can, what the ribs are.

The COURT.—The witness has not yet answered the first proposition. You have not yet described the mechanical construction of this instrument or device that is covered by that patent that you have in your hand.

The WITNESS.—I will try again.

The COURT.—You are an expert in these matters, and you have got a picture in your mind, have you not, of this device?

A. A very clear one.

The COURT.—Just lay that patent aside and give the jury a description of that device as to its mechani-

(Testimony of William H. Smyth.)

cal construction.

A. The device is a phonograph horn primarily intended to be collapsed, but in addition to the collapsible features is the feature of amplifying the sound of a phonograph, and secondly, it is made bell-like, or as the inventor calls it, "conoidal form, flaring, trumpet-like," and in order that this horn shall have when enlarged into its normal usable form that flaring conoidal form he forms it of sections, of a plurality or multiplicity of sections, which, when assembled, will produce that trumpet-like form.

The COURT.—Are those sections longitudinal?

A. They are longitudinal, tapering from one end to the other so that, as I have already said, when assembled, they will produce the trumpet-like form.

The COURT.—Q. How are they united?

A. They are united by hinged joints for collapsible purposes and these hinged joints, as the inventor says, form stiffening ribs, or rib-like constructions at the point of union of the [187—166] tapering members. I think that describes the construction of it.

Mr. MILLER.—That may describe what the witness's idea of it is, your Honor, but it is not a description of the device shown in the patent.

Mr. ACKER.—I submit that counsel will have an opportunity of cross-examining this witness.

The COURT.—Yes, I think so. It is merely confusing him. The witness has given his idea of it, Mr. Miller, and if you differ with him you can proceed upon your cross-examination to disclose to the

(Testimony of William H. Smyth.)

jury wherein he is mistaken.

Mr. ACKER.—Q. How are the ribs disclosed by the device of the Villy patent arranged relative to the body of the horn?

A. Longitudinal at the junction of the section.

The COURT.—Q. At the hinged junction.

A. Yes.

Mr. ACKER.—Q. What is the function of the ribs disclosed by the patent?

A. To permit of the horn being collapsed.

The COURT.—Does the rib constitute a part of the hinge?

A. The inventor says the hinge forms the rib. It is the hinge. It is an enlarging of the metal at that point which makes it.

The COURT.—That does not describe a metal instrument.

A. He says he makes it of any preferable flexible material, any material preferably flexible.

Mr. MILLER.—He can read what the patent says, but he cannot give his own construction of it.

A. "I make this enlarged and trumpetlike device by employing a series of strips B of paper, wood, linen, or other preferably flexible material," etc. [188—167]

Mr. ACKER.—Q. Are the ribs formed at the longitudinal seams of the sections which constitute the horn?

Mr. MILLER.—I object to the form of that question as leading.

The COURT.—I will overrule the objection.

(Testimony of William H. Smyth.)

Mr. MILLER.—We note an exception.

A. The ribs are formed at the longitudinal joints of the section.

Mr. ACKER.—Q. Can you state whether or not the ribs joining the sections at the longitudinal edges constitute a portion of the seam union between the strips?

Mr. MILLER.—I object to that question on the same grounds, and on the further ground that it calls for the conclusion of the witness and does not enter into the actual construction of the device.

The COURT.—Objection overruled.

Mr. MILLER.—Exception.

A. They do.

Mr. ACKER.—Q. As one familiar with mechanical devices and the reading of letters patent, what do you understand by the expression that a device may be made of any suitable form of material?

Mr. MILLER.—I object to that question as incompetent, and not a proper question to ask an expert.

The COURT.—I think it is a proper question. Any suitable flexible material is one which one versed in an art may give us a definition of.

Mr. MILLER.—I shall have to note an exception.

A. It gives the mechanic leeway to use his judgment on the material which he prefers to employ in the structure or device.

The COURT.—That will accomplish the purpose?

A. That will accomplish the purpose. [189—168]

Mr. ACKER.—Q. I will ask you to compare the Plaintiff's Exhibit 12 with the device disclosed by

(Testimony of William H. Smyth.)

the Villy patent, and state such similarities and differences as you find to exist between them.  
[190—169]

(The reporter read the question.)

A. The device of Plaintiff's Exhibit 14 is a horn for phonographs made up of a plurality or multiplicity of strips of tapering form.

The COURT.—That device has been fully described to the jury.

A. I am carrying out a logical idea getting up to the differences. These tapering strips which constitute the horn when assembled are united at their longitudinal seams by a lock joint, and in this respect differs from the Villy structure, but this lock seam has the same effect of stiffening the horn that the longitudinal joints of the Villy structure has. This horn is made of metal the same as the device which I have already testified to was in accordance with the Villy patent or the description in the Villy patent, and it is in that respect—it comes under the description of the metal disclosed in the specifications of the Villy patent.

The COURT.—You are drifting into something that I will have to strike out. You are to describe the physical features of these things in accordance with the technical art, and the question as to whether a certain patent warrants a certain thing is a question for the court and the jury.

The WITNESS.—I was trying to keep in mind the construction described in the Villy patent.

Mr. MILLER.—I move to strike out the latter part of the answer.

(Testimony of William H. Smyth.)

The COURT.—Let it go out.

The WITNESS.—Then is the question answered?

[191—170]

The COURT.—Yes, it is answered.

The WITNESS.—That is all I care about.

Mr. ACKER.—Q. I now hand you a copy of the Nielsen patent, the same being the letters patent in suit, and I will ask you to examine the same carefully and point out such provision, if any you find in the said letters patent, for permanently uniting the sections of the horn, and in answering the question eliminate any reference to the claims?

A. I am sufficiently familiar with that patent to know that there is no provision made for permanently securing the edges together other than the assumption.

Q. What are the general shape of the strips given to devices disclosed in the Villy patent after *the* constitute the body portion of the horn?

A. They are tapering on curvalineal lines.

Q. They taper from each end?

The COURT.—Q. That would be bell-shaped?

A. Yes.

Q. Would the device of the Villy patent be of that general shape, bell-shape?

A. Yes. In answering that question I will say that Figure 3 of the Villy patent shows this section.

The COURT.—It shows a slight curvature there.

Mr. ACKER.—Q. What do Figures 1 and 5 of the Villy patent disclose so far as the general shape and appearance of the horn are concerned?

(Testimony of William H. Smyth.)

A. It shows a horn of bell—

The COURT.—Figure 1?

Mr. ACKER.—Figures 1 and 5.

A. I would say that in regard to that the curvature depends somewhat upon the number of strips. If the device is desired to be made out of few strips, the curvature will be greater. [192—171] If made out of more the curvature of each one will be less. It is a question of the number of sections.

Q. I direct your attention to United States Letters patent No. 699,928, Defendant's Exhibit "N," and ask you to describe the device disclosed by the said letters patent and the construction and how the parts are arranged relative to each other?

A. This device is a sheet metal structure for a ship ventilator, such as you see on boats that carry the air down into the interior, and it is of tapering form made curved, but enlarged at one end and smaller at the other and made up of sections necessarily having a tapering form and united at the edges and provided with stiffening ribs.

Q. How are the strips going to make up that device united?

A. They are united by being curved into hook K form, and then the hooks at the joint of a U. or C form is slipped over the joints and the hook joins and secured them together forming a distinct rib-like structure at the point of union of the tapering sections.

Q. I will ask you to examine Defendant's Exhibit "M," the same being printed copy of United States

(Testimony of William H. Smyth.)

letters patent No. 648,994, granted to M. D. Porter, May 8, 1911, for collapsible accoustic horn, and ask you to please give us the construction and arrangement of the parts going to make up that horn?

A. This is a horn for conveying sound for any purpose and it consists, as shown in the drawing, to be of two tapering sections which when bent or curved together form a horn larger at one end than the other.

Q. What is the *horn* of the seam or union between the sections going to make up the horn when they are united?

A. The inventor says two forms, one of which is a sort of a slip joint, and the other is a joint having hooks and eyes. [193—172]

Q. I hand you a copy of United States letters patent No. 7051126, granted to Ostend *et al.*, July 22, 1902, for horn for sound recording or reproducing apparatus, and ask you to please describe the construction and arrangement of the device disclosed by the said patent, the same being exhibit "L"?

A. It is a horn for sound recording or producing apparatus. It is a collapsible horn, collapsible endwise instead of longitudinally, and this inventor desired to minimize the vibrations so he placed ribs on the inside and also ribs transversely to the horn that is, circumferentially.

The COURT.—Q. Bands?

A. Bands. He says with reference to that: h h are outside strips or ribs extending sides a' a' in a direction practically parallel to the sound posts and acting to strengthen the tone and vibrations, as well

(Testimony of William H. Smyth.)

as making the horn more durable. The sound posts and ribs are of special importance, as they act in practically the same manner as do the sound posts and ribs of a violin. They improve the tone quality by softening and mellowing the same, at the same time increasing the carrying properties and distinctness of the sound, particularly where the horn is made completely of wood. The metallic sound so common to sound recording and reproducing apparatus is effectually eliminated.

Q. The function ascribed to the ribs h h, of the Osten et al. patent is to eliminate and reduce the metallic sound? A. Yes.

Mr. MILLER.—He has already stated that, he read it from the patent.

The COURT.—He read from the patent what it was.

Mr. ACKER.—Q. How do the sections composing the horn of letters patent 405,126 differ from the sections composing the horn of the patent in suit?

The COURT.—The sections are transverse? [194—173]

A. No, sir. I think Mr. Acker referred to the tapering sections running longitudinally.

The COURT.—There are no sections there running longitudinally.

A. Yes, the tapering sides.

Mr. MILLER.—This is a square, wooden instrument.

The COURT.—I thought this was collapsible.

A. Yes, it is, telescopic.

(Testimony of William H. Smyth.)

Mr. MILLER.—Q. That is what we term a knock-down horn?

A. Yes, sir.

(The reporter read the question.)

A. (Continuing.) That differs in the respect in which the sections necessary to make up a square pyramid would form an octagonal pyramid.

The COURT.—Q. This is a square instrument. is it?

A. Yes, it is four-sided, it is a four-sided device, and is distinct from a polygonal or many-sided device.

Mr. MILLER.—What is it made of?

The COURT.—Wood, he said.

Mr. ACKER.—Q. I wish you would read that part of the specifications contained between lines 45 and 50, column 1, page 1, and state what is the disclosure of the form of device therein referred to in exhibit "L," 405,126.

A. In the section referred to by counsel the inventor provides that the body may, however, be made of circular, oval, or any other suitable shape or cross-section.

Mr. MILLER.—He asked you to read from line 45.

A. "A is the body of the horn, which, as shown, is made of four tapering thin wooden sides a a a' a', secured together along their edge, thus forming a body part of rectangular cross-sections. The body part may, however, be made of [195—174] circular, oval, or any other suitable shape in cross-section."

(Testimony of William H. Smyth.)

Mr. ACKER.—Q. I hand you printed copy United States letters patent No. 10,235 for an improved speaking trumpet, same being Defendant's Exhibit "D," and ask you to describe the form of device therein shown.

A. The device, which is a design patent, is that of a speaking trumpet composed of tapering longitudinal strips with a bell shaped end for amplifying sound and this design shows ribs at the point of junction of the tapering sections and this is especially shown in figure 2 of the drawing of the patent. It is of octagonal form in cross-section tapering from one end to the other.

Q. I hand you printed copy United States letters patent No. 181,159, granted August 15, 1876, being Defendant's Exhibit "F," and ask you the same question regarding the device therein shown.

A. The device of this patent is for a blowing horn, or sounding instrument, and it is provided with spiral or transverse ribs. It is corrugated from one end to the other. It is of tapering or cone shape and made of corrugated sheet metal. In this case stiffening ribs, as I have already stated, run spirally around the instrument.

The COURT.—Q. It is one continuous spiral rib?

A. Yes, not necessarily one, I think.

The COURT.—It looks that way.

A. Yes.

Q. It is a continuous rib?

A. It is a continuous rib.

Mr. ACKER.—Q. What function is given by the

(Testimony of William H. Smyth.)

patentee of the letters patent for the formation of the ribs on the exterior surface of the horn?

A. The inventor says that: "It is well known that the thinner the metal of which such horns are made the sharper the tone; but in cases where [196—175] the horns are plain or smooth, and made of light metal, they do not have the requisite strength or keep proper shape, and in a short period would not be merchantable or present a neat appearance."

The COURT.—I suppose that these patents can be read at any time?

Mr. ACKER.—I do not like to take up the time of the Court, but these patents have been put in as exhibits and the Courts have held that unless there is some evidence touching them the exhibits will not be considered.

The COURT.—I have no doubt of that, but I am speaking about asking the witness to read from the patents.

Mr. ACKER.—You need not read from any of the patents, Mr. Smyth. I don't care to encumber the record with that.

The COURT.—I thought that was your question.

Mr. ACKER.—I did not intend it to be so.

Q. I call your attention to Defendant's Exhibit "B," the same being printed copy United States letters patent 8824, for an improved design, and will ask you to describe the form of the design therein shown.

A. It is a bell-shaped conoidal or convolvulous trumpet shape and is made up of sections not dis-

(Testimony of William H. Smyth.)

creet or separate sections, but of panels which at the angles are supplied or provided with rib-like protrusions or stiffening members.

Q. You have used the expression "rib-like." I will ask you whether or not the patentee defines in the specifications certain parts to be ribs.

A. Reading from the portion of the patent referred to by counsel, "b b, are ribs which extend from the line of the base up along the exterior surface of the vase body to the upper edge or mouth, terminating there." [197—176]

The COURT.—The inventor designated those as ribs?

A. Yes.

Mr. ACKER.—Q. I will ask you to examine letters patent 61,239, issued October 18, 1898, the same being Defendant's Exhibit "J" and ask you to define the structure there shown and described.

A. This is a sound amplifying device, or as the inventor calls it, an audiphone, which consists of a flat conical form provided with longitudinal ribs or corrugations extending longitudinally from the bigger diameter to the smaller diameter.

Q. I hand you printed copy United States letters patent 409,196, August 20, 1889, the same being Defendant's Exhibit "G," and ask you to define the construction of the device you find therein disclosed.

A. This is a construction of sheet-metal pipe, formed of longitudinal sections, and each of the sections at the joint bond or seam is formed into ribs longitudinal to the pipe for the purpose of stiffening

(Testimony of William H. Smyth.)

the pipe, and the inventor describes a variety of such joints some of which are parallel, others spiral, and some of the ribs stand vertically outward and others are laid down flat. He shows the pipe made of two sections and also of more.

Q. What is the form of the union disclosed between the strips constituting the cylinder as illustrated in figure 8 of the letters patent?

A. It is a flange lock rib, that is to say, the edge of the metal is turned substantially at right angles to the body of the metal, and these right angled up-turnings are first bent along side of each other, one of the flanges being slightly wider than the other and is bent over the shorter flange to lock it.

Q. Is it an exteriorly disposed flange or interiorly?

A. It is an exteriorly disposed flange. [198—177]

Q. Please examine letters patent No. 651,368 of June 12, 1900, the same being Defendant's Exhibit "K," and describe the form of device you find therein disclosed, how it is made up and how the parts are joined.

A. This patent shows the description of a sheet metal construction for beams or columns, and the device illustrated in the drawing is that of a tapering structure formed of sections joined at their edges by flanges, and those flanges extend outwardly from the surface of the assembled device at the point of junction of the tapering sections and form stiffening ribs which ribs are in this device riveted together.

Q. I will ask you the same question with regard to letters patent No. 406,332, granted to Bayles, July 2,

(Testimony of William H. Smyth.)

1889, the same being Defendant's Exhibit "H."

A. This is another pipe made up of one or more sections, the edges of the sections being formed into flanges which when united constitute ribs running longitudinal to the pipe, and are joined together as in the last case by being riveted together. The inventor in his drawing shows such device being made of one section, two sections and three sections, and he also shows in circular form and in square form a pipe of similar construction. The ribs are in all cases on the exterior of the completed pipe constituting stiffening ribs or members.

Q. I will ask you the same question regarding United States patent No. 34,907, the same being United States letters patent of August 1, 1901, granted to C. McVeety and J. F. Ford, and being Defendant's Exhibit "I."

A. This is a similar device and looks almost identical with the one I described a while ago for a ship ventilator, and the construction is substantially of the same character in that its general contour is that of a curved octagonal figure in the form of a cornucopia, and being octagonal in cross-section [199—178] and having ribs at the intersection of the plates forming the walls of the ventilator, that is to say, formed of tapering sections which when united form or constitute a tapering form of construction, and at the point of junction of the sections there are stiffening ribs.

Q. How are those ribs disposed relative to the body of the horn?     A. Longitudinal.

(Testimony of William H. Smyth.)

Q. How many strips are illustrated to constitute the body of the horn?     A. Eight strips or sections.

Q. I call your attention to British patent No. 7594 of 1900 for an improvement in graphophones or phonographs, the same being Defendant's Exhibit "P," and ask you to describe the device therein shown and described.

A. This is a tapering horn for graphophones or phonographs showing a tapering conoidal form of various angles, the sides increasing from the smaller or mouth end to the larger or sound end and it is constructed of one piece and is provided with a rib or joint, or joint forming a rib which consists of folded metal.

Q. I will ask you the same question with regard to British patent No. 17,786 of 1902 for phonographs or talking machines, the same being Defendant's Exhibit "R," and ask you to describe the structure of the device therein shown and described.

A. This is a device much similar to the last one, the body part being of tapering or conical form with a bell-shaped mouth. This device along its length is provided with a rib, a flange rib in this case, and the joint where the two flanges come together in one instance is provided with a U-shaped cap much the same as I described with reference to the ventilator horn. The body is of cone shape with a bell mouth.

Q. How many ribs are in that device as shown by the drawing?     A. This one rib, Mr. Acker.

Q. I call your attention to the specification immediately preceding the preamble to the claim and ask

(Testimony of William H. Smyth.)

you what is understood by "rib"?

A. The inventor says in [200—179] the part referred to by counsel: "I do not confine myself to any particular form or shape of the plug, or of the tongue, and the trumpet may be round, oval, or any other suitable cross-section. In any of the above trumpets a single sheet or a sheet composed of more than one sheet of different material stuck together may be used."

Q. If more than one sheet was used or stuck together, would that create the formation of more than one rib or seam union?

A. It would make as many ribs as there were sections employed, the ribs of course, being longitudinal with the device.

Q. I hand you British No. 20,567 of 1902 for improvement in phonographs, the same being Defendant's Exhibit "Q," and ask you the same question concerning that device.

A. The device in this patent is substantially the same general shape as that of the last, but the tapers run in a rather peculiar manner in the cross-section in that the point of union of the two edges is formed into an angle by means of bending the material at that point and meeting the adjacent edge on the other side of the cone-shaped section at right angles whereby a substantial right angle is formed, that is, the section is round principally and comes to an angle, and the metal at that point is lapped over to form a lap joint, but it forms an angle at the point of union, so it is not only a lap joint, but it is an angular

(Testimony of William H. Smyth.)

joint at the same time.

Q. Does the metal joint protrude on the exterior or the interior of the surface of the horn?

A. On the exterior of the horn, likewise the angle of junction is on the exterior and the normal circumference section, the normal circular circumference section.

Q. I call your attention to Defendant's Exhibit Brady Hood No. 2, and I will ask you to describe the construction of the [201—180] device therein constructed so far as relate to the body portion irrespective of this little cap.

A. This is a sheet metal structure of substantially conoidal shape formed of sections united at their edges, the sections being tapering in form and the joints at the point of union of the sections being lap joints, but these lap joints are raised above the surface to form ribs along the point of union longitudinally along the union of the sections.

The COURT.—They are simply left raised up and not flattened down?

A. They are deliberately raised by a groove.

Q. How?

A. Probably run along a roller to raise them up. They have been deliberately raised up in the metal.

The COURT.—It may be, but I doubt it.

The WITNESS.—The ordinary way of constructing these joints, and certainly in this, would be to put it through a bench roller, which is two rollers coming together, one of which fits slightly into the other, and it is rolled along this joint. It is something of the

(Testimony of William H. Smyth.)

same type as the last one I referred to, in that the joining of the metal forms the angle and hence it is raised above the surface as in the device I last described.

Mr. ACKER.—Q. British patent Defendant's Exhibit "Q"?

A. Yes. You have a lap seam and not a lock seam. Two metals would not come together and would not lay together at that angle, and consequently you would have to use solder to fill in, whereas the mechanic who made this bent that edge down, and he wanted to make a lap seam so he bent this edge down, rolling it with a roller where it forms the angle, and that constitutes the protrusion above the normal surface of the metal.

Q. What would you term that protrusion above the normal [202—181] surface of the metal?

A. It is a rib, to that extent.

Q. If I understand you correctly from your last answer, in constructing that device the operator first formed a lap seam and then converted that into a rib?

A. The rib was made in order that the lap seam could be made. If the two surfaces came together at that angle, one metal would pass the other and they could not lay together, but in order that they would lay together the metal is bent over and in the bending over it is raised above the surface, both sections.

Q. And flanged outwardly and then back again to make the groove for the lock?

(Testimony of William H. Smyth.)

A. Yes. There is a groove or corrugation formed on the edge in order that the two edges may come together and lay flat together.

The COURT.—This is spending a great deal of time over something that is largely immaterial.

Mr. ACKER.—Q. Please examine Defendant's Exhibit Brady Horn, and state the construction and how that horn is formed and the manner of construction.

A. It is a horn of sheet metal of conical shape larger at the mouth end than at the other. It is formed of two tapering sections united at their edges by a lock seam, each section being so united. The lock being formed on the outside of the cone and to that extent forms a stiffening rib.

Q. How does the protrusion of metal on the exterior of the horn and likewise in Defendant's Brady Exhibit No. 2 conform to the protrusion of the metal in Plaintiff's Exhibit No. 14 or differ therefrom?

A. I say, practically speaking they are substantially the same.

Mr. MILLER.—I interpose the same objection to that question that I did to the other questions where the [203—182] witness was asked to compare the defendant's structure with any structure of the prior art, on the ground that it is incompetent, and I note the same exception.

A. The joints of Brady Exhibit 2 being a lap and exhibit 4 being a lock seam, otherwise they are the same. The horn Exhibit Brady model being the same as that of exhibit 14.

(Testimony of William H. Smyth.)

Mr. ACKER.—That concludes my direct examination of the witness.

Cross-examination.

Mr. MILLER.—Q. You have spoken of a flange seam in the sheet metal art. Is it absolutely necessary in making a flange seam that you should use solder, or is there any other way of making a flange seam without the use of solder? A. Yes.

Q. How would you make it without the use of solder?

A. You could have one of the flanges longer than the other like many of these exhibits, bend the metal over so as to interlock with the other flange and then you could rivet them together, or bend them over in some manner that will hold the flanges together.

Q. I show you a little model of tin and ask you if that is the kind of construction you refer to.

A. Yes, that is not an uncommon form of joint.

Q. Explain to the jury how that joint is formed.

A. The metal edge is turned up, one is formed into a hook form, and the other is left simply turned at a right angle, and then the longer one is bent down or hooked over the other joint and there may or may not be solder between them.

Q. In that case you do not need any solder at all?

A. No, sir; that is a common form of construction.

Q. That is shown in this patent of Hart in 1889, one of the exhibits in this case?

A. I don't remember the name. [204—183]  
Kindly call my attention to the patent.

(Testimony of William H. Smyth.)

Q. In that case the flanges are both outwardly extended from the surface of the metal, are they not?

A. Yes.

Q. Now, suppose you were just to throw that joint over by running a roller over it, or any other device, so as to make it lie down flat on the side—

A. Yes.

Q. What kind of a joint would you call that?

A. A lock joint, no longer a flange joint.

Q. In that case the flanges would still be outside of the metal?

A. I should not say they were flanges there at all. You have destroyed the flanges.

Q. I am not going to wrangle with you about terms.

The COURT.—Q. The projection would still be on the outside of the metal?

A. The projection, but no flange.

Mr. MILLER.—Q. There is a flange there, is there not? A. Yes.

Q. And if you fold it down on the metal it would not be a flange any more? A. No, sir.

Q. If you fold it down it would take the position shown in this second metal which I now show you?

A. Yes.

Q. And the only difference between the two is the first one has been folded over the other one?

A. One is a flange joint and the other is a lock joint.

Q. I am not asking you about terms. I am asking you for the physical condition. The only difference

(Testimony of William H. Smyth.)

is that one has a joint, or whatever you call it, turned down flat onto the metal?

The COURT.—He is asking you for the fact.

A. That is obvious. [205—184]

The COURT.—Q. And that you call a flange joint?

A. When raised up.

The COURT.—Q. And the other is the same joint with the flange put down? A. Yes.

Mr. MILLER.—Q. That is the only difference between them? A. Yes.

Q. And when you turn it down, the thing, whatever you call it, or the joint is still extending outwardly from the surface of the metal? A. Yes.

Q. And the first one you say is a flange joint and the second one you say is not a flange joint?

A. Precisely.

Q. In the first case would you call that joint a rib?

A. I would.

Q. And in the other case would you call it a rib?

A. Rib-line character. It is a rib. A rib is raised above the surface, that is a rib.

Mr. MILLER.—I offer these two models in evidence and ask that they be marked Plaintiff's Exhibits 21 and 22.

Q. The joint that has been shown in the second tin model No. 21, which you have stated is a lock seam joint, is substantially the same, is it not, as that shown in the plaintiff's model exhibit 14?

A. I am not quite sure. I think it is a lock seam. It might be easily a seam of this character. It might have the same joint as this, but so far as I can see

(Testimony of William H. Smyth.)

here it is a lock seam.

Q. It would be a rib?

A. To the extent of protruding above the surface.

Q. Now, I understand that there is another way of making a lock seam and that is by making the hooks of two pieces of metal formed in opposite directions and then hooking them together and mashing them down?

A. That is sometimes [206—185] called a double lock; it is a lock seam.

Q. When those are fastened together and mashed down, then it is a lock seam and would be the same as this model exhibit 21, but the only difference would be in the method of manufacture?

A. Not exactly, Mr. Miller, but they are substantially the same.

Q. The only difference would be in the method of manufacture? A. Yes.

Q. And that has been known in the tinsmith's art for as many years as you can remember? A. Yes.

Q. Those two ways of making that joint?

A. Yes, sir.

Q. And also that way of forming that flange joint that you have there in this first tin model.

A. Yes, very common.

Q. You called our attention to the fact that in the plaintiff's patent there was no method pointed out as to how the flanges were to be united together?

A. Yes.

Q. Did you attribute any significance to that fact?

A. Not the slightest.

(Testimony of William H. Smyth.)

Q. How would you form the joint?

A. I would use my judgment. I would use the latitude that I would have under that patent and fasten them together by any suitable means.

Q. By a method that was known to the art at that time. A. Yes, sir.

Q. And you would not have the slightest difficulty in knowing how to join the two pieces of tin together?

A. No, sir.

Q. Why did you call our attention to the fact that there was no way described in there of making that joint and then did not give us the additional information that it was not necessary [207—186] to have that in the patent because the mechanics knew that?

The COURT.—He stated that in answer to a question asked of him by counsel.

Mr. MILLER.—I will withdraw that question.

Q. Please take the Villy Patent Exhibit “O” while I ask you some questions in regard to it. First, let me ask you to read to the jury from line 20 of the specifications of the patent which show the object of the invention.

A. From line 20, Mr. Miller?

Q. Yes.

A. “The object being to provide a horn or trumpet-like device which can be folded when not in use, so as to be capable of ready transportation and for placing within the case of the phonograph or in the pocket of the user when it is to be applied to an ear instrument or the like.”

Q. What do you understand by the expression

(Testimony of William H. Smyth.)

there "ear instrument"?

A. The function of the device is not confined to amplifying sound from a phonograph, but is also for the purpose of using to assist the deaf to hear, or partially deaf.

Q. And by that instrument you simply mean an ear trumpet?

A. Yes, a sound amplifying for any purpose for which that may be used.

Q. He also says up above there that it may be applied to fog horns?     A. Yes.

Q. And you knew that fact also, did you?

A. Yes.

Q. Now, refer to Figure 2 of the patent and tell me what that figure represents?

A. It represents the foldable section of the horn, that is, the horn unfolded.

Q. All spread out?     A. Yes.

Q. It is not—

A. Not exactly flat, but substantially so. [208—187]

Q. Then there must be a slip in the horn to attach the two ends together when you fold it, which can be undone when you want to fold it out flat, is that the idea?

A. Yes. That is in the form of the illustration in the patent.

Q. I am not asking you about any form except that Figure 2. What are those little devices that look like buttons?     A. Let me finish my answer.

The COURT.—Answer the question that is asked

(Testimony of William H. Smyth.)

of you and if your answer need any explanation counsel on the other side will ask you anything they see fit. You must not argue with counsel. Just answer the questions that he asks you.

Mr. MILLER.—Q. I call your attention in Figure 2 in the devices there represented by the letters H and F, and ask you what they are?

A. Attaching devices.

Q. And of what character?

A. Those are projections.

Q. Something like a glove fastener, or what is commonly called a ball fastener? A. Yes.

Q. You have seen gloves that have an eyelet on one side and a ball on the other side and the ball is pressed into the eyelet and that fastens the glove, that is what that is, isn't it? A. Yes.

Q. And when this horn is to be put together for the purpose of using as a phonograph horn, you fold it over and button those things together? A. Yes.

Q. I call your attention to line 44, following where it says: "I make this enlarged and trumpet-like device by employing a series of strips B of paper—

A. Where are you reading from, Mr. Miller?

Q. From line 44. "I make this enlarged and trumpet-like [209—188] device by employing a series of strips B of paper, wood, linen, or other preferable flexible material." What is the character of paper, wood, or linen, in respect to sonorous qualities?

A. Well, they vary considerable. Wood is reson-

(Testimony of William H. Smyth.)

ant; paper is less so, and linen, I should say, was very much less so.

Q. Does paper tend to absorb a sound that is projected against it?     A. All materials do.

Q. I am asking you if paper tends to absorb a sound that is projected against it?

A. I said all materials do, which includes paper.

The COURT.—Answer the question.

A. Yes.

Mr. MILLER.—Q. Is that due to the fact that paper is of a nature more or less porous?

A. I presume so, Mr. Miller, it is absorbent.

Q. And if you project sound against a velvet surface, what would be the effect of that?

A. Extremely absorbent.

Q. It would almost entirely absorb the sound?

A. Yes.

Q. And if you project that same sound against a metal surface, what would happen to it?

A. That depends upon the character of the metal.

Q. Well, say tin?

A. Tin would be very resonant.

Q. That is due to the vibration of the tin?

A. Yes.

Q. That is noted from the fact that when you build a house and before you put any furniture in the room the walls give off a resonant sound, but when you put in the draperies, velvets, curtains and things of that kind, the sound is not so resonant?

A. Yes. [210—189]

Q. You can distinguish the difference very

(Testimony of William H. Smyth.)

readily?     A. Oh, yes.

The COURT.—Q. As to the volume of sound?

A. Yes, or rather, the sound that is not absorbed is very much greater before the carpets or curtains are put in, and so forth.

Mr. MILLER.—It says further in that same connection: “The foundations of which I prefer to make of linen or the like so as to form a hinge-like connection C between each of the strips.” Now, how would you proceed under that direction to join those strips together?

A. Depending upon the metal that I preferably employed in the construction of the device. If I was making it of linen I would probably make the hinges of linen. If I was making it of paper I would make the hinges out of tough paper; if I was making it out of flexible material I would make the hinges out of flexible material. Those are hinge-like structures and are well known in the art of connecting devices flexibly together.

Q. How does the patent say that these strips are connected together, by what material?

A. He says “I prefer to make of linen *of* the like so as to form hinge-like connections.”

Q. That language would mean that he would take the linen strip and paste it over the joint or connecting joint?

A. Not necessarily. He leaves it clearly open to the constructor what form of connection to use.

Q. Does he paste the linen as specified in the clause that I have read together—does he paste the two strips together?

(Testimony of William H. Smyth.)

A. He would take his section of preferred material and make his hinges in accordance with the material of which he made the section.

Q. He would place the two strips together?  
[211—190]

Q. He would place the two strips together and then paste the linen over the adjoining edges and then spread them out; is that the way it would be made?

A. Might be made that way. That seems the reasonable way of doing it.

Q. If I were to take these two pieces of tin and would place a linen strip from one to the other and fold it over and paste it over on the side, and then were to spread it out so as to form a horn and bring them together, would that be the way you think that his direction is for the manufacture?

A. That would be one way.

Q. I am not asking you for any other way.

A. I have given an answer to that question just as clearly as I can. The character of the hinge would be determined by the material of the section and the preference of the constructor.

Q. Do you find any other hinge described in here than the linene hinge?

A. I find no language descriptive of any hinge but he says that he prefers to use linen. "I prefer to make of linen or the like so as to form a hinge-like connection." It is clear the man had in his mind some other form of hinge than of linen.

Q. "I prefer to make it of linen or the like." Now, do the words "or the like" mean something that is analogous to or like linen as the hinge material?

(Testimony of William H. Smyth.)

A. It is not the character of material he is referred to; it is the flexibility of it.

Q. You are here as an expert and I am trying to find out from you what this language means. That is all I am asking of you. I read this language to you: "I prefer to make of linen or the like." Now, I am asking you if the words "or the like" means a material like linen or analogous to linen. [212—191]

A. It means a flexible material. It is like linen in the characteristic of flexibility.

Q. That is what I understand you to mean by that.

A. Of course that is what anybody would understand by it—a mechanic like myself.

Q. I don't want to get into any argument with you. I want you to answer the questions. I think my questions are fair enough.

A. I am trying to give you a mechanic's interpretation.

Q. According to your understanding of these specifications, then, when he says he makes these joints of linen or like material, you think that he could make the joints of tin or metal; is that your idea?

A. You are misquoting the patent. You said "like material."

Q. It says "linen or the like." "I prefer to make these joints of linen or the like."

A. "Or the like."

Q. Do the words "or the like" mean that he could make it of tin instead of linen? A. Why, surely.

Q. He could make it of brass? A. Yes.

Q. Any kind of material instead of linen?

(Testimony of William H. Smyth.)

A. Yes, so long as that inherent quality of flexibility is there to form a hinge of like character.

Q. Then you could take an old door hinge and put it on between those two strips?

A. He has done it in this case here.

Q. Who has done it?

A. In this exhibit that I have been referring to.

Q. You mean that it is done in this model exhibit "T"? A. Yes.

Q. And you think that is what Villy meant in his patent by [213—192] saying "like material."

A. That is the form which I as a mechanic would build that structure in.

Q. Is that what Villy meant by his patent?

A. That is what I think Villy meant.

Q. If I were to tell you that that joint which you see there is a metal hinge joint, that you think Villy meant, and were I to show you that that was patented in the year 1909, seven or eight years after the Villy patent was issued, with a large number of claims on that specific joint, that specific construction, would that alter your opinion? A. Not a particle.

Q. You would think that if Villy intended that kind of a joint, that a man could come along in 1909 and get a patent on that thing?

A. I am only responsible for my own opinions. That is my opinion, that that hinge is one of the commonest forms of flexible joints and we all know about it. If a man would tell me to make a flexible hinge joint, that would be the kind of a joint I would make, and that is what it is commonly called by. He would not have to bring my attention to that fact, I

(Testimony of William H. Smyth.)

am so familiar with it.

Q. The device of the hinge in this model exhibit "T" is practically a door hinge, isn't it?

A. Why, of course, all hinges are door hinges if they are put on a door.

Q. And the kind of a hinge that is there shown is the form of hinge that is put on a door?

A. Many doors have hinges going from top to bottom. I have seen them.

Q. Please point out on this model exhibit "T," which you have referred to, the buttoning devices H and F shown in Figure 2 of the Villy patent?

A. It obviously isn't there.

Q. Why aren't they there if this is the Villy patent? [214—193]

A. That is one of the licenses or liberties taken by the constructor in this case.

Q. He has taken the liberty of leaving off from this model here representing the Villy patent the feature which I have referred to as the buttoning device H and F, is that the fact? A. He does; yes.

Q. In this Villy advice shown in this patent those buttoning devices are to enable the device to be folded out flat? A. Yes.

Q. Is this device exhibit "T" capable of doing that?

A. No, but your questions imply that that is the only disclosure, which you know as well as I do is not.

Q. All you have to do is to answer my questions.

A. You said the Villy patent.

Q. Do you set yourself up as one of the attorneys in this case so that you argue these matters with me?

(Testimony of William H. Smyth.)

The COURT.—I will have to again admonish the witness to confine himself to answering the questions and stop right there. You will always be protected by the attorneys who represent the other side. After you get through with the cross-examination you will be given an opportunity to amplify anything you wish, but confine yourself now to answering the questions of counsel and do not argue with counsel. Answer the questions that are asked of you. If you cannot answer them say so.

The WITNESS.—I would like to call attention to that last question. Mr. Miller spoke about the patent, and he evidently meant the drawing.

The COURT.—It does not make any difference about that. Counsel on the other side of the case are sitting here watching these things and you will be protected. [215—194]

The WITNESS.—I don't care anything about the case myself.

The COURT.—Then just confine yourself to answering the questions. I do not like acrimonious discussions between counsel and the witness, because it adds nothing to the effect of the testimony. In fact, it detracts from the orderly progress of the case.

Mr. MILLER.—Q. Please take this device exhibit "T" and point out to the jury where those buttoning devices would be if they were put on there and what function they would perform and what they would enable you to do with the horn.

A. They would be placed between any of these joints so as to make a connection correspondent to one of the hinges.

(Testimony of William H. Smyth.)

Q. And those two sections would be bent over something like a glove or a woman's dress? A. Yes.

Q. And could be unfolded? A. Yes.

Q. You cannot do that with this horn, can you, since the buttoning devices are not there?

A. If the buttoning device is not there you obviously cannot unbutton it..

Q. Fold up that horn for the jury and show what it will do in that regard.

(The witness complies with the request of counsel.)

Q. You have folded it up? A. Yes.

Q. It resembles somewhat the operation of folding up a fan? A. Yes.

Q. Or an umbrella? A. Yes.

Q. That is what you call the collapsible feature of the horn? A. Yes.

Q. Is that what the patentee meant when he said, "The object being to provide a horn or trumpet-like device which can be [216—195] folded when not in use." A. Yes.

Q. I call your attention also to the letter L in the drawing and ask you what that device represents, Figure 5?

A. That is the mouth piece of the horn.

Q. Where is that in this model exhibit "T"?

A. This is the structure that holds it together.

Q. Those pieces are made of sheet metal, are they?

A. Yes.

Q. What does the patent say those pieces are made of? A. Call my attention to the place, please.

Q. I call your attention to line 98, following.

A. "I prefer to make this extended or carrying

(Testimony of William H. Smyth.)

member L for the collapsible trumpet from paper or other suitable material built up in a similar manner to that hereinbefore described to my collapsible, or the cone may be made in a short length in one piece, or it may be made telescopic when so desired."

Q. I call your attention to line 18 in the specifications where he says: "When constructing a funnel or tube for an ear trumpet, or for a fog or speaking horn or the like, I employ the same method of building up the segments to form the expanding surface, modifying the arrangement of the inner end to suit the connection that is to be made therewith."

A. Where are you reading from?

Q. Line 18 I began: "So that when the trumpet is in use it can be extended and a large outer area exposed for the collection of sound and when not in use it can be folded, each segment upon the other, so as to occupy but little space—that is to say, a trumpet such as illustrated in Figures 1, 2, 4 would be suitable as an ear trumpet." A. Yes.

Q. In other words, that means that when he is going to use it [217—196] for an ear trumpet or a fog horn it can be used in the same way?

A. Yes, always within the modifications permitted by the language of the specifications.

Q. Now, if the horn were to be made of strips or strips of paper and they were to be connected, could there be a linen joint pasted over them? A. Yes.

Q. Where would there be any ribs?

A. I doubt whether there would be anything really rib-like.

Q. I show you a device made out of paper strips

(Testimony of William H. Smyth.)

with pieces of linen pasted over the edges so as to fold up, and I ask you if that is made in accordance with the Villy patent.

A. It certainly is. That is one of the forms that this inventor contemplates.

Q. And when it is to be used then he folds it round in this way and bends it over? A. Yes.

Q. And spreads it out and then puts the mouth piece on there? A. Yes.

Q. When he wants to take it out he unbuttons it just like a woman's dress and folds it up in that way and puts it in his pocket and carries it away?

A. Yes.

Q. And that, he says, is the object of the invention?

A. Yes.

Q. You referred to an Exhibit Brady Hood No. 2. I will ask you what the object of that device is.

A. I really don't know, Mr. Miller, but I imagine it is a light hood or reflector.

Q. If you put up in the ceiling here an electric light you could put that over it to reflect the light downward?

A. Yes, precisely the same as any reflector reflects sound or otherwise. [218—197]

Q. You notice that it is painted white on the inside? A. Yes.

Q. That is for the purpose of reflecting light?

A. Yes, white is a less absorbent color than black.

Q. There would be no trouble in a device of that kind in regard to the vibration of the metal itself. Light would not have any effect on that, would it? I will put it this way: The vibration of the metal

(Testimony of William H. Smyth.)

there wouldn't have any effect on the light?

A. It is the reflection of those vibrations which make the light that comes to us.

Q. You would not have any problem to solve in the matter of taking care of the vibrations in the reflector itself when you were building a thing of that kind?

A. Why, Mr. Miller, the painting of it white is a problem.

Q. I am talking about the vibrations of the metal.

The COURT.—The vibrations would not have any effect upon the light?      A. No, sir.

Mr. MILLER.—And that would not be a problem to be solved in that case?      A. No, sir.

Q. When you are building a phonograph horn in which you are projecting music from the music box through the horn, then there would be a problem of taking care of the vibrations of the metal, wouldn't there?

A. Yes. Personally, however, I think the problem never existed.

Q. Practically then there would be no difference in the problem when you were dealing with sound and when you were dealing with light, is that true?

A. You asked me to give my opinion, or the opinion that was reflected in the mind of this inventor.

Q. I am asking you for your own opinion.

A. I think [219—198] there never was any problem there.

Q. If you were dealing with sound you would have a sound problem to deal with?      A. Yes.

Q. And if you were dealing with light you would

(Testimony of William H. Smyth.)

have a different problem to deal with?

A. Yes, and no.

Q. Well, tell us which is yes and which is no?

A. This inventor—

Q. I am asking you for your opinion?

The COURT.—He is asking you that if you were dealing with light and dealing with sound if you wouldn't have different problems to deal with, and you said yes and no.

A. I had another matter in my mind, but I will let it go at that.

Q. (Mr. MILLER.) How fast does sound travel?

A. The least audible sound, I think, has fourteen vibrations a second and the highest has something like thirty odd thousand and light vibrates, I think, at a hundred and eighty-two thousand feet per second.

Q. Don't you know that all sounds travel at exactly the same rate of speed?

A. The vibrations?

Q. I asked you how fast sound traveled?

A. About a thousand feet per second.

Q. And all sounds travel at exactly the same rate of speed, do they not?

A. You mean the time that the impression reaches the ear from the point of origin?

Q. Yes?

A. That is approximately a thousand feet per second.

Q. And light travels how fast?

A. A hundred and eighty-two thousand miles per second.

(Testimony of William H. Smyth.)

Q. Light travels one hundred and eighty-five thousand miles per second?     A. Yes.

Q. And sound travels at the rate of eleven hundred feet per [220—199] second?

A. Yes, that is near enough.

Q. To be exact, it is ten hundred and ninety. That would be two entirely different branches of science?

The COURT.—He has said so.

Mr. MILLER.—Q. You referred also to this Brady horn, did you not?

The COURT.—Brady Exhibit 1.

A. Yes, Mr. Miller.

Mr. MILLER.—Q. And you have known of an instrument like this ever since your boyhood?

A. Yes.

Q. That is nothing more or less than a blowing horn?

A. That is what it is. It is a horn for amplifying sound.

Q. And when you were a boy you had a horn like that to blow through, I know that I did?

A. Yes. I made myself a nuisance to everybody.

Q. And this other device here, Brady Hood No. 2, that is an electric light hood too, isn't it?

A. For reflecting light, yes.

Q. I show you the brass horn that the defendant has put in evidence here as Defendant's Exhibit Tea Tray 20-inch. That is practically nothing more than a blowing horn also?

A. Well, yes, these are nothing more than sound

(Testimony of William H. Smyth.)

amplifiers, whether they are ear trumpets or phonograph horns, they are all the same thing, and they all look alike to me.

Q. They all look alike to you?

A. They all look alike to me so far as the function of amplifying sound is concerned.

Q. And you think that this Brady horn No. 1 would amplify the sound just as much as the horn that is used on this phonograph here so far as amplifying the sound is concerned? [221—200]

A. I really don't know, but I should judge yes. I think the shape of these things is a good deal of fancy.

Q. You think that one shape is just as good as another?

A. I am not quite sure that is not a fact. I myself have seen phonographs with square sound amplifiers without any of these forms that so much stress is placed on in this matter.

Q. I am not talking about anything that is not in this case. You said that practically all of these horns look alike to you?      A. Yes.

Q. I ask you whether or not this Brady horn will amplify the sound just as well as the defendant's horn?

A. I think if the end of it were as large as that, that you and I would have a great deal of difficulty in determining which was which.

Q. And does your testimony also apply to this horn known as the B and G horn—do you think that would amplify just as well as any of the rest?

(Testimony of William H. Smyth.)

A. I rather think so, but I place no stress upon that because I have made no experiments on the subject. I am just giving you my general knowledge and theory of the matter.

Q. Have you ever made a special study of the subject of sound?

A. No, but I have had occasion to read up on that subject frequently.

Q. I ask you if you have ever made any special study of that subject?

A. No more than many other subjects with which I am pretty generally familiar.

Q. Your knowledge of the doctrine of sound, then, is merely your general knowledge that an engineer would naturally acquire in studying the various subjects along that line?

A. I have been a close student all my life.

Q. But you have never been a close student of sound? [222—201]

A. Not specially so.

Q. Your knowledge of sound is a general knowledge that a scientific man would get from studying scientific subjects? A. I suppose so; yes.

Q. You have not experimented with sound instruments? A. No, I don't think I have.

Q. Are you a musician?

A. I play the angelus with my feet.

Q. That is a mechanical piano? A. Yes.

Q. Do you sing?

A. I sometimes call it such, but I don't know whether other people do so or not.

(Testimony of William H. Smyth.)

Q. You do not perform on any musical instrument except this mechanical piano player?

A. I have a very musical wife and I am in a musical crowd.

Q. You have taken out quite a large number of patents?      A. A very large number.

Q. And you have sold them to other concerns?

A. I have sold a good many of them.

Q. And you have made quite a lot of money that way?      A. Oh, yes, a little.

Q. I want to call your attention to the Defendant's Exhibit "B," a design patent to E. F. Shirley, because that seems to have the nearest form to the Nielsen structure. You did not tell the jury what that device was. What it formed?

A. I think it is a vase design.

Q. Well, what does the patent say?

A. It is a design for glassware.

Q. It is simply a glass vase to hold flowers or something of that kind?

A. Yes, that is what it is.

Q. And there is no mechanical patent about it; it is simply a design patent?

A. Yes. [223—202]

Q. And a design patent is merely to cover the form of it?      A. Yes.

Q. It is not made in separate sections, is it?

A. Not in the sense of being discreet or separable. The form is in separate panels.

Q. It is all molded in one mould?

A. Yes, all moulded in one piece.

(Testimony of William H. Smyth.)

Q. And these ribs or separations there are merely to add beauty to the thing?

A. Doubtless, yes.

Q. You refer to a patent here for a design for a ship's ventilator?     A. Yes.

Q. You mean by that the device that is placed on the deck of a ship and that brings the hot air from the hold and discharges it out into the open?

A. Yes.

The COURT.—Q. What they call funnels?

A. They are not funnels.

Q. Air funnels?     A. Yes.

Mr. MILLER.—They are curved at the top to a certain extent and they discharge the hot air and let the cold air go down?     A. Yes.

Q. And the ribs that are put on those devices are there for the purpose of strengthening them structurally?     A. Yes.

Q. There is no question of sound vibration to be met with there?     A. Probably not.

Q. You also referred to the patent of Fallows' Exhibit "F," that is simply a toy blow horn, is it not?     A. Yes, sir.

Q. That is a toy, isn't it?     A. Yes.

Q. And the horn is made with spiral corrugations around it?     A. Yes.

Q. It is all in one piece?

A. I think it is my [224—203] recollection that it is in one piece. It has a joint.

Q. You also referred to exhibit "G," the patent to Hart?     A. Yes.

(Testimony of William H. Smyth.)

Q. And that form of joint is substantially the same as is illustrated in these two models which I showed you, Plaintiff's Exhibits 21 and 22?

A. Yes, sir.

Q. And the date of that patent is August 20, 1889? A. Yes, sir.

**[Testimony of Alfred A. Reed, for Defendant  
(Recalled).]**

ALFRED A. REED, recalled by the defendant.

Mr. ACKER.—Q. You were called as a witness on behalf of the plaintiff and testified before in this suit? A. Yes.

Q. I understood from your testimony that you were in the employ of Sherman, Clay & Company?

A. Yes, sir.

Q. Are you familiar with the various types of horns that have been purchased and put into use and sold by Sherman, Clay & Company? A. I am.

Q. Can you state whether or not Sherman, Clay & Company at any time purchased any horns from the Searchlight Horn Company the plaintiff in this case?

A. We bought about three hundred in 1907.

Q. What was the form of those horns, what kind of a horn was it? [225—204]

A. A metal horn, some were black and some were painted blue.

Q. Were they what is called folding horns?

A. Folding horns.

Q. Examine the various exhibits that have been introduced in this case and say if any of them con-

(Testimony of Alfred A. Reed.)

form to the form of horn that you have described.

A. It is a horn like this style.

Q. The horn that has been introduced in evidence and known as the Villy horn, Plaintiff's Exhibit "T"? A. Yes.

Q. How does this exhibit compare in its form and structural arrangement with the horns that Sherman, Clay & Company purchased from the Searchlight Horn Company? A. The same thing.

Q. Were they constructed of metal?

A. Constructed of metal.

Q. And were the strips constituting the horn formed in the same manner?

A. They were exactly in the same manner.

Q. Is this horn identical with the horns that you purchased from the Searchlight Horn Company?

A. Yes.

Q. How many of those horns did you say you purchased? A. Three hundred.

Q. How early in 1907?

A. I think February or March, somewhere along the first part of the year, if I remember right.

Q. How were those horns sold, as what type of horn?

A. Folding horn, 19 and 22 inch folding horns. They were made in two sizes.

Q. You purchased two sizes? A. Yes.

Mr. ACKER.—That is all. [226—205]

Cross-examination.

Mr. MILLER.—Q. There is one question I wanted to ask of you which I neglected to ask of you

(Testimony of Alfred A. Reed.)

before and I will now ask permission of the Court to ask it. Your company has sold a number of horns of the Victor Talking Machine Company such as this exhibit No. 15—

Mr. ACKER.—That is objected to—

Mr. MILLER.—I haven't finished yet.

Q. And I will ask you who was the manufacturer of those horns?

Mr. ACKER.—I object to that question on the ground that it is not proper cross-examination.

Mr. MILLER.—I admit that it is not cross-examination. I prefaced the question with the remark that I would ask permission of the Court to ask it, because I should have asked it before.

A. What is the question again?

The COURT.—I will overrule the objection.

(The reporter read the question.)

A. That I don't know. They were furnished to us by the Victor Talking Machine Company with the machines.

Q. You don't know who manufactured them?

A. I don't know who manufactures their products.

Q. Have you ever been in the Victor Talking Machine Company's factory in the east?

A. I have not.

Q. Have you ever been in the Tea Tray Company's factory? A. I have not.

Mr. MILLER.—That is all.

Mr. ACKER.—We rest. [227—206]

[**Testimony of Christian Krabbe, for Plaintiff  
(Recalled in Rebuttal).**]

CHRISTIAN KRABBE, recalled by the plaintiff  
in rebuttal.

Direct Examination.

Mr. MILLER.—Q. Mr. Krabbe, some testimony has been given here concerning a horn called the Villy horn. I will show you the Villy patent, Defendant's Exhibit "O" and will ask you if you have knowledge of the Villy horn?

The COURT.—As illustrated in that patent.

Mr. MILLER.—Q. As illustrated in that patent?

A. What do you ask me?

(The reporter read the question.)

A. Yes.

Q. As illustrated in the patent? A. Yes.

Q. Where did you get this Villy horn which you refer to? A. When?

Q. When and where did you get it?

A. You are asking me when and where I got the Villy horn, is that what you are asking me?

Q. Yes?

A. When we got the Nielsen patent and we commenced to manufacture under the Nielsen patent and Mr. Locke was going to prosecute—

Q. You need not go into that. Where did you get the Villy horn from?

A. I got the Villy horn in England.

The COURT.—Q. The patent or the horn?

A. The horn in England.

Mr. MILLER.—Q. You went over to England

(Testimony of Christian Krabbe.)

and got it?     A. I went over to England.

Q. And did you see Villy there?

A. I saw him, yes.

Q. Did he give you the horn?

A. He gave me this horn, yes.

Q. What kind of a horn was it?

A. It was a horn made [228—207] out of paper. It was a horn laying flat there.

Q. You have not got that horn here?     A. Yes.

Q. Just illustrate how that Villy horn was constructed?     A. Some of those pieces of tin—

Q. Do you mean to say that you have the horn which Villy gave you?

A. No, sir, I have not got that. I have got that home.

Q. What is this horn?

A. This is the Burnett horn made by the Searchlight Horn Company.

Q. Tell us the construction of the Villy horn that you got from Villy.

A. What I got from Mr. Villy was a piece or section of a horn made out of paper, out of red paper, board paper, and it was pasted together with linen, white linen on both sides, and it was folded up like a fan. The edges were folded together, four ways or three ways, I can't remember exactly. It buttoned with something like glove buttons, so you would take the pieces up and put them together like you would button a glove, and then you take the tube or trumpet like this and stick it on the end like that here to hold it up. It was not stiff. It was loose and

(Testimony of Christian Krabbe.)

flabby and it did not hold up. You just put the pieces like that and then you would fold it up. You would take the horn apart that way.

Q. Did you bring that horn back to the United States?     A. Yes.

Q. Did you manufacture any of those horns?

A. No, it was no use to manufacture them, they were loose and would fall to pieces. You would use them two or three times. They were made out of paper and they were not salable and nobody would buy them.

Q. They were not a practical horn?

A. They were not practical. [229—208]

Q. Were those Villy horns ever made or put on sale for use in the United States?

A. No, Mr. Villey told me that he tried to sell them in England.

The COURT.—Don't testify to anything that Mr. Villy told you.

Mr. MILLER.—Q. I understand that the substance of your testimony is that you could not do anything with that horn in the way of selling it?

A. No, sir.

Q. It was not a practical horn?

A. Not practical.

Q. And it was never sold or used in the United States?     A. No, sir.

Mr. MILLER.—That is all.

Mr. ACKER.—That is all.

[**Testimony of Baldwin Vale, for Plaintiff (Recalled in Rebuttal).**]

BALDWIN VALE recalled by the plaintiff in rebuttal.

Direct Examination.

Mr. MILLER.—Q. I call your attention to this Villy patent, Defendant's Exhibit "O," and I want you to explain to the jury very briefly what the mechanical construction is as shown by that patent and described in the specifications as illustrated in the drawings, and how it is done.

A. It is composed of a number of narrow strips joined at their longitudinal edges of pieces of linen pasted across which form a hinge.

Q. Just refer to that portion of the specifications that makes a statement in regard to the material of which the hinges are made and read it to me and then I will ask you a question about it.

A. About line 44. "I make this enlarged and [230—209] trumpet-like device by employing a series of strips b, of paper, wood, linen, or other preferably flexible material."

Q. Tell me what are the qualities of paper, wood, and linen as to resonance when applied to sound instruments.

A. With the possible exception of wood they are not considered resonant material.

The COURT.—Q. Wood is more or less resonant?

A. Yes, it is used for sounding boards.

Mr. MILLER.—Q. When it says "or other preferably flexible material," as a patent solicitor and per-

(Testimony of Baldwin Vale.)

son acquainted with the doctrine of sound and the resonance of material, will you tell the jury what is included in that expression, or what that expression means?

A. Inasmuch as he has said, wood, linen, and paper, which are three materials of similar nature in that they are all fibrous, I should say he was rather limiting his materials to fibrous materials.

Q. Would tin or sheet metal be included in the same category as those materials that are mentioned so far as resonance was concerned? A. No, sir.

Q. What happens so far as resonance is concerned when you employ tin or sheet metal?

A. It has the power of continuing a propagated sound. In other words they are conductors of sound.

Q. How is it in regard to the other materials that you have mentioned?

A. They are absorbers of sound.

Q. If you were proceeding as a person skilled in the art to build a horn as described in those Villy specifications, how would you proceed to do it?

A. We first get the strips in the necessary shape and form of the bell-shaped horn, and then join the longitudinal edges by pasting on a gummed tape of linen. The linen simply forms a hinge by reason [231—210] of its thickness and by reason of the nature of it.

The COURT.—Q. Its tenaciousness and flexibility?

A. Yes, it is tenacious to a certain extent.

Mr. MILLER.—Q. I hand you two metal strips

(Testimony of Baldwin Vale.)

and ask you if you understood to form a horn of metal strips by making a joint such as that shown in the Villy patent. Just explain to the jury how it could be done, and if not why not, and what would be the difficulty and impracticability of it.

A. As one skilled in the art, I should not even attempt it. It has been proven too often that it is impracticable to paste or glue any flexible material to tin or metal, so that it will stand any flexing or cross-strains. That is proven right here. I thought I was going to aid the Court by sticking on these labels, but they have fallen off almost as fast as they were put on.

Q. They would not stick?      A. No, sir.

Q. If you undertook to join these metal strips together by means of linen as described in the patent here, it would be impracticable to do that?

A. Utterly impracticable.

Q. Do you find described anywhere in the specifications of this Villy patent any language providing that tin or metal strips are to be used in making the horn?

A. He clinches on to the outer edge of these particular strips, with no relation whatever to the joint of the hinge, so that when he sets it down on the ground these pieces that he clinches on here will protect the strip and prevent it from going to pieces quite so quickly.

Q. As a solicitor of patents, do you find anywhere shown in this patent language that following its orig-

(Testimony of Baldwin Vale.)

inal construction a person would make a horn of metal?

A. No, sir, not [232—211] in any of the readings I have given it.

Q. You would make it in the way that you have just described?

A. Mr. Villy was skilled in the art, and anyone skilled in the art would recognize that metal wasn't preferred in that construction.

Q. I want to ask you something about the province of ribs in a horn constructed according to this Villy patent. The specifications say, "The angles formed by the meeting of the hinged segments when extended form, as it were, ribs, giving rigidity to the trumpet form." Please explain that to the jury.

A. It is well known in mechanics and architecture that the corner of this room is stronger than the middle, and I may call the corner of the room the rib. They put water-tanks and such things as that on buildings over the corners if it is possible, but it is not a rib in any sense of the word.

Q. Which is not?

A. The joining of these strips to form the horn. That is not what would be called a mechanical rib.

Q. There would be a ridge there, but there would not be a rib in the sense that you have used it?

A. Certainly not.

Mr. MILLER.—That is all.

Cross-examination.

Mr. ACKER.—Q. Read that portion of the specifications contained between lines 68 and 76, column

(Testimony of Baldwin Vale.)

2, page 2, of the Villy specifications.

A. "I do not limit the application of my invention to any particular method of building up the segments or to any special curve or configuration of the same, and I vary the method of joining and stiffening them to suit the material from which the strips are constructed and the foundation or base fabric upon which the flexible material forming the strips is secured." [233—212]

Q. As a person skilled in drawing up applications for patents, state the purpose of a clause of that kind being put in to the effect that changes and modifications may be made.

A. It is put in so that one skilled in the art can vary the exact method described in the specifications.

Q. In such a clause as that put in for purpose of reading scope in and laying the whole art open to one who is going to practice that particular thing?

A. It certainly is.

Q. In making a specific description of mechanism in a patent application, how many forms do you show? A. You are limited to showing one form.

Q. And that one form in which it is shown in the patent before you is a paper strip, is it not?

A. A paper strip, yes.

Q. That is the form of strip that is shown in the patent?

A. It is described as that. I cannot see in the drawing what the material is.

Q. Suppose a patent solicitor were to give an opinion that other forms might be used which would be

(Testimony of Baldwin Vale.)

mechanical equivalents of that, what does he do in order to cover that point?

A. He puts in a clause such as you have just read.

Q. And the form of that clause is what?

A. To broaden *in*, and give scope to the preferred method shown and described.

Q. Would the answer that you gave to the same question that was asked of you by Mr. Miller in relation to the Nielsen patent apply and be a proper answer to that question, the answer that you then gave being "To entitle the patentee to the practice of his invention in its broadest scope"?

A. Did I say "broadest"?

Q. Yes, that is what you said.

A. I don't think I could change the rules of practice of the Patent Office defining what that scope would be. Did I use the word "broadest" [234—213] in my answer?

Q. Yes, and then you made a broad statement in reply to counsel in testifying regarding the Nielson patent on that point.

The COURT.—Q. What do you say is the scope given by the Patent Office?

A. You are compelled to describe only one form.

Q. And that is the preferable form in the mind of the inventor?

A. Yes. And then the Patent Office gives you latitude on each side of that so that you may practice your invention within the art.

Mr. ACKER.—Q. And Villy in the patent showed one form of uniting the strips which go to compose

(Testimony of Baldwin Vale.)

the body portion of the horn?

A. Villy showed a rib in connection with the joints.

Q. That discloses a longitudinal rib? A. Yes.

Q. Running lengthwise and formed at the angle of the joint of the strips? A. Yes.

Q. Hinge joints were well known at the date of the Villy patent, were they not, that being September 29, 1903? A. Simply as hinges, yes.

Q. It was a well known form of connection between parts? A. Oh, yes.

Q. And metal strips were well known at that time?

A. Yes.

Q. And metal strips had been used in phonograph horns at that time, had they not?

A. 1903, I think, yes. I am not sure on that point.

Q. All those forms of connection and forms of strips were open to the patentee Villy at the time he made his application, is that not so?

A. Well, within the limits of his preferred form of construction [235—214] which would be limited to wood, linen, and other flexible material of that nature. It says here "or the like." Metal hinge is not like a linen hinge.

The COURT.—Q. Does Villy's patent call for a rib?

A. No, sir. That was in connection with the Nielsen patent.

The COURT.—I was going to ask you how you would form a rib out of linen. I thought you were reading from this patent when you called attention to the rib?

(Testimony of Baldwin Vale.)

A. No.

Mr. ACKER.—He inadvertently used the expression.

A. You were asking about the patent and I said he had a rib at the joint, and if there is any misunderstanding, let us go back and get the question.

Mr. ACKER.—It is immaterial.

A. I have testified twice, I think, that the Villy patent has no rib.

The COURT.—I think maybe it was in the form of counsel's question, or it may have been your own answer.

Mr. ACKER.—That is all.

### Redirect Examination.

Mr. MILLER.—Q. Just one more question. You stated that as an expert patent solicitor that in applying for a patent the office only allowed you to describe one form? A. Yes.

Q. And isn't it a fact that that must be the form which the patentee considers to be the best, or as is generally expressed the preferred form? A. Yes.

Q. And if he does not want his patent limited to that specific form, I understand you to say he puts in some such saving clause as this that you have read?

A. Yes. [236—215]

Q. And you cannot make variations that would differ from the mechanical equivalent of the form that is shown in the patent? A. No, sir.

Q. Now, take this Villy patent; would strips made of tin or other metal be the mechanical equivalent of the strips specified in the patent?

(Testimony of Baldwin Vale.)

A. They would not be mechanical equivalents, because you would have to change the whole construction of the language to have that element enter into it.

Q. Metal strips would be outside of that disclosure? A. Entirely outside.

Q. And you do not find any other method of joining the parts in that patent except joining them by a linen strip?

A. Nothing but the linen strip or something like linen.

Q. Would a metal hinge joint, in your opinion, be the equivalent of that joint? A. No, sir.

Q. There would be no sense in putting a metal hinge between the two paper strips? A. No, sir.

Mr. MILLER.—That is all.

Mr. ACKER.—Q. If you went to work under the Villy patent and should make the strips of metal, how would you join them together to carry out the purpose of the Villy patent?

A. I don't know. As I just testified, there would have to be a change in the practice of the art to substitute a metal joint for a linen joint.

Q. My question was, if you made metal strips instead of paper strips, how would you join them together to carry out the Villy patent?

A. I don't think the Villy patent would apply if I did.

Q. What do you understand to be meant by the language of the patentee when he says: "I vary the method of jointing and stiffening them to suit the

(Testimony of Baldwin Vale.)

material from which the strips [237—216] are made"? A. Yes.

Q. He showed one method of joining the strips together? A. Yes.

Q. He says, "I will vary that method according to the material from which the strips are made."

A. Yes.

Q. If you vary from the method which is shown in the patent and instead of using paper you would use metal, how would you join them together?

A. I don't believe you can.

The COURT.—Q. If you did employ metal. Disregard the idea that you could not under the law make a device of metal called for by the Villy patent. If you did use metal, what sort of a hinge or joint would be employed?

A. If I used metal strips I would use a metal hinge.

Mr. ACKER.—Q. Similar to the one that is disclosed by the model exhibit "W," Defendant's Exhibit "W"?

A. That appears to me to be a very good way of doing it.

Q. That is a well known and ordinary form of hinge construction?

A. That is what is called the piano hinge, because it is continuous.

Q. It was well known in the art at that time?

A. When was this patent taken out by Villy?

Q. In 1909.

A. Yes. I don't think it was known in the art at that time in that connection.

(Testimony of Baldwin Vale.)

The COURT.—Q. That style of hinge?

A. A hinge consisting of one portion of the metal being carried around a pin or wire was known then.

Mr. ACKER.—Q. And as one skilled in the art, if you were called upon to make a horn such as is disclosed by the Villy patent and substitute metal strips in lieu of paper strips, you would unite them in substantially the manner shown and described in that horn, Defendant's Exhibit "W"? [238—217]

A. Yes, if that is Defendant's Exhibit "W."

Mr. ACKER.—That is all.

Mr. MILLER.—Q. I show you United States patent No. 926,235, for phonograph horn issued to Paul B. T. Berner, June 29, 1909, and I ask you to say, if you have looked at that patent and understand the same, and if you have compared it with the model Defendant's Exhibit "T," how the model compares with the description and illustration shown in the patent?

Mr. ACKER.—I object to the question as being irrelevant, incompetent and immaterial. It relates to a patent that was issued in 1909, and I do not see how that can have any bearing upon this case.

The COURT.—(After argument by counsel.) The objection to the question will be sustained, Mr. Miller.

Mr. MILLER.—I note an exception. I would like to put in evidence these devices that Mr. Vale testified about, and I ask that they be marked Plaintiff's Exhibit 23.

The COURT.—They will go in in connection with

(Testimony of Baldwin Vale.)

the testimony of Mr. Vale.

Mr. MILLER.—Yes. That is all the testimony that we have.

The COURT.—Does that close the evidence?

Mr. MILLER.—Yes.

Mr. ACKER.—Yes.

Mr. SCRIVNER.—Before we start in on the argument we desire to submit a motion.

The COURT.—Submit your motion.

Mr. SCRIVNER.—The defendant moves the Court that the jury be directed to find a verdict for the defendant upon the ground that Claims 2 and 3 of the patent in suit are void for want of a patentable invention, and second, that neither of said claims have been infringed by the defendant. I would like to argue that if your Honor cares to hear it. [239—218]

The COURT.—I do not think that you could satisfy me on the three propositions you make. I will deny the motion for a directed verdict on both grounds.

Mr. SCRIVNER.—We note an exception.

### **Defendant's Exception No. 5.**

To which ruling of the Court the defendant, by its counsel, duly excepted, and hereby tenders this its Bill of Exceptions for the Court to sign and seal, and the Court does hereby sign and seal the same.

The case was then argued by respective counsel and after argument the Court instructed the jury, and the following is the charge in full, viz.: [240—219]

**Charge to the Jury.**

The COURT.—Gentlemen of the Jury, as this seems now to be the last case on the calendar, you will be definitely discharged after you have performed your functions in this case. I will not bring you back here on another day, but will submit this case to you at this time, and I will ask your careful attention while I do so.

I wish to say preliminarily in keeping with some suggestions that I have made to counsel during the progress of the argument that it will be your duty in this case to take the law from the Court itself.

It has occurred in this case, as it not infrequently does in the trial of other cases, that counsel have unconsciously throughout the course of their arguments indulged in comments to the jury upon what they deem the law to be on the particular points that they were discussing. Of course, realizing that that is something which is very difficult to avoid the Court dislikes to interrupt counsel unless it can see that it may mislead the jury; but with reference to that subject, whatever suggestions may have been made to you by counsel on either side as to what the law is in this case, you will entirely discard such suggestions from your consideration and pay attention solely to the law as given by the Court.

Counsel have a perfect right to discuss the evidence and elucidate its salient features so as to make it more intelligible to the Jury, and thereby aid their judgment in passing on the evidence, because it is your duty to find upon the facts, but the law is

exclusively for the Court to give. With these preliminary remarks I will now proceed to give you the specific features of the law which will govern [241—220] you in your considerations of the evidence in this case.

This is an action at law by the plaintiff to recover from the defendant damages alleged to have been suffered by plaintiff through the infringement by defendant of the letters patent in suit, which have been put in evidence and read to you, issued to one Neilsen and alleged to have heretofore passed by assignment to the plaintiff. The formal instruments of assignment have been put in evidence and are sufficient in law to pass title in the patent to the plaintiff.

The infringement by the defendant is claimed to have consisted in the sale by defendant without right from the plaintiff of the patented device. Under the law an infringement of a patent may consist in either making, using or selling of the patented device without the license or privilege of the owner of the patent.

The defendant has interposed several defenses to the action which will be hereafter more fully stated and explained to you.

The first proposition involved in the case is the proper construction to be given to the claims of the patent sued on, that is to say, to ascertain what the patent covers and protects. That is a question of law to be determined by the Court, it being the function of the Court to instruct you as to what this patent covers, in other words, to construe the patent for you and tell you what it means; and it will be your

duty to accept the construction so given you by the Court. After that the first question for you to determine from the evidence will be the validity of the patent, and if you decide that the patent as constructed by the Court is invalid, that will be the end of the case and you must render a verdict for the defendant. But if you decide that the patent as [242—221] construed by the Court is valid, then the next question for you to determine is whether it has been infringed by the defendant; and if you decide that it has been infringed, then the final question for you to determine will be the amount of actual damages suffered by the plaintiff by reason of said infringement and to render a verdict therefor in favor of the plaintiff.

In determining whether this patent is valid, I instruct you as a matter of law that plaintiff's patent is *prima facie* valid, that is, it is presumed in law to be valid, and by this is meant that the patent itself, properly executed and issued by the government as this appears to be, is sufficient to establish its validity if no evidence to the contrary is produced by the defendant. This presumption, however, is not a conclusive one but may be overthrown by evidence. In other words, the defendant may show that notwithstanding the presumption of validity arising from the patent itself, certain facts existed antecedent to the granting of the patent which would invalidate it, that is, render it of no binding effect.

Where the defendant, as in this case, undertakes to show the invalidity of the patent, the burden of proof rests on the defendant in that behalf, and in

order to succeed it must produce evidence which shows and satisfies you beyond a reasonable doubt that the patent is invalid. It is not sufficient for the defendant merely to raise a doubt in your minds on that point, because a mere doubt is not sufficient to overthrow a patent. The rule of law is that the defendant must show invalidity by evidence which establishes the matter beyond a reasonable doubt. Consequently you will be justified in holding this patent to be valid unless the [243—222] defendant has proved to you its invalidity by evidence which convinces you of that fact beyond a reasonable doubt.

I shall now proceed to give you the construction of the Neilsen patent, and by that I mean I will tell you what is the thing covered and patented by that instrument so far as concerns the claims in controversy here.

The invention consists of a horn for phonographs or similar instruments, and its objects are, as stated in the patent, to do away with the mechanical, vibratory and metallic sound usually produced in the operation of such machines, and to produce a full, even and continuous volume of sound in which the articulation is clear, full and distinct. The horn is constructed of metal strips secured together at their longitudinal edges by a seam, which produces ribs on the outside of the horn. In the patent this seam is shown as being a flanged or butt seam, and these flanges extend outwardly, thereby forming longitudinal ribs on the outside of the horn; the sheet metal strips are curved or flexed outwardly, but this

curve is more abrupt adjacent to the outlet of the horn or the mouth or large end, thereby producing a bell-shaped horn with a flaring outlet. This is the mechanical structure described in the specification, and after specifying the method of construction the patentee had added the following clause:

“My improved horn may be used in connection with phonographs or other machines of this class and changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its object.”

Now, the invention actually covered by the patent does not reside in the particular form of the seam which joins the metal strips together. If the same result produced by the flanged seam shown in the patent as joining the metal [244—223] strips together is obtainable by any other usual form of seam known at the time of Nielsen's invention which operates in substantially the same way to produce the same result, then the substitution of such a seam would not be a departure from the invention, but would be within its real and true scope. The invention of Nielsen consists in the production of a horn for phonographs and similar instruments consisting of a combination of the various elements hereinabove described by me, and the essential characteristics of the Nielsen horn are the following:

1. It must be composed of a multiplicity of metal strips secured together at their longitudinal edges by a seam.
2. This seam must be of such construction as to

produce longitudinal ribs on the outer surface of the horn.

3. The strips are narrower in cross-sections at the inner end than at the outer end.

4. The strips must curve outwardly from the inner to the outer end, but the curve is more abrupt adjacent the outer end.

Now, combining these elements together in this way, Nielsen produced a horn for phonographs and similar machines larger at one end than the other and having substantially a bell-shape and abruptly flaring outlet made up of longitudinally arranged metal strips secured together at their outer edges by a seam of such character as to produce longitudinal ribs on the outer surface.

This is an explanation of the invention in colloquial language rather than in technical form, and I instruct you that it correctly represents the invention as protected by the claims in issue of the Nielsen patent.

The defendant has attacked the validity of the patent on two grounds, first, for want of invention, and [245—224] second, for anticipation. If either of those defenses be established to your satisfaction beyond a reasonable doubt, you will render a verdict for the defendant; and if they are not established to your satisfaction beyond a reasonable doubt, then you must find for the plaintiff on those issues.

By the expression "want of invention" which is one of the grounds on which the defendant attacks the plaintiff's patent, is meant that the thing covered by the patent did not require for its production the

inventive faculty of the human mind, but that it required only the exercise of mechanical skill. This distinction results from the fact that under the law patents can be granted only for those things which are invented and not for those things which are produced by mere mechanical skill. This is rather an abstruse question and one of the hardest to determine in patent law because of the fact that no definition can be given of the word "invention" as used in this connection, which covers all cases.

A thing to be patentable must be the conception of the mind of the inventor as distinguished from the mere work of his hands as a skilled mechanic or artisan conversant with the art to which his production relates. It must be both new and useful; that is, new in the sense that the same conception or thing is not to be found in the prior art, and useful to a degree that it either brings about a new result or an old result in a substantially improved and different manner. A mere change in the form, or rearrangement of the parts of an old device without producing any new result or a result or function substantially different from the [246—225] result or function of the old device does not constitute invention. No more exact definition can readily be given you of what constitutes invention as distinguished from mere mechanical skill; but there is one established principle or rule which can be easily understood and followed in determining that question whenever the facts of the case make it applicable. That rule is that in a doubtful case, if it appears by the evidence that the patented device has gone into

general use and has superseded prior devices having the same purpose, that fact is sufficient evidence of invention, and will justify a jury in deciding that the patent involves invention and is valid.

If you find, therefore, that this is a doubtful case on the question of invention, and that after Nielsen's horn became known it went into general use and superseded the prior devices having the same purpose and theretofore used, you will be justified in giving effect to those facts in accordance with the rule of law pointed out, by finding that the device involved invention.

The other defense advanced by the defendant against the validity of the patent is that of anticipation, and by that expression is meant that the thing covered by Nielsen's patent had been known or used by other people or described or shown in some other patent or publication before Nielsen made his invention. If that is true, of course, Nielsen was not the first inventor, and his patent would therefore be invalid for that reason, because a patent can be granted only to the first and original inventor. But in order to succeed in this defense the defendant must show you by evidence [247—226] which places the matter beyond a reasonable doubt that Nielsen was not the original and first inventor, or, in other words, that before the time when Nielsen claims to have made his invention, the thing that is covered by Nielsen's patent was either known or used by others, or shown or described in some other or prior patent or publication.

It is urged by the defendant that the Nielsen patent

was anticipated by certain devices and patents which were made or issued before the date of Nielsen's patent, and those devices and patents have been put in evidence and explained to you. It will be your duty to compare the Nielsen invention as heretofore construed by me with those prior devices and patents in the light of the evidence elucidating them, and unless you find in one of these prior devices or patents a disclosure and description of the Nielsen invention as heretofore construed by me, it will be your duty to find that there is no anticipation of the Nielsen patent by reason of any of these prior devices or patents.

Another defense set up by the defendant is that of noninfringement. That is to say, the defendant contends that even if the Nielsen patent is valid, the defendant has not infringed upon any of its claims, and in that behalf it is pointed out and relied upon by the defendant that the metal strips constituting the defendant's horn are secured together by a seam or joint known as a flanged or butt seam. The difference between those seams has been explained to you by the witnesses. Now, while it is true that the drawings of the Nielsen patent show only the flanged or butt seam and not the lock seam specifically, and while it is true that the [248—227] specification described only the flanged seam, nevertheless it is urged by the plaintiff that the lock seam is the mechanical equivalent of the flanged or butt seam, and was known as such mechanical equivalent in the tin-smith art long prior to the time when Nielsen made his invention. Now, if you are satisfied from the

evidence that the lock seam is the mechanical equivalent of the flange or butt seam as a seam and strengthening rib, then the fact that the defendant has substituted and used the lock seam will not be sufficient to disprove infringement of the Nielsen patent; and in this connection I charge you that in patent law two things are mechanical equivalents when they both accomplish substantially the same results in substantially the same manner, although they may differ somewhat in form and details of construction. The law does not require a patentee to put into his patent all the different forms in which his invention may be embodied. He is required to illustrate in his patent only one form, which must be the best form in which he has contemplated embodying his invention, and after he has done that, then the patent covers other forms which are the mechanical equivalent of the one shown in the patent. And furthermore, in this connection, you have a right to consider the clause in the Nielsen patent, that is:

“Changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.”

If, therefore, you find that at the date of Nielsen's invention the lock seam was a mechanical equivalent of the flanged or butt seam in the sheet metal art, and that they both accomplish the same result in substantially the same manner as a seam and rib when used in phonograph horns, then you must find that the two things are mechanical equivalents and that the defendant is not relieved from the charge of

[249—228] infringement merely because its horns use the lock seam instead of the flanged or butt seam. In other respects than in the form of the seam and the presence of a rib it is not contended that the defendant's horn differs materially from that covered by the plaintiff's patent.

If you find that the plaintiff's patent involved invention and that it has been infringed by the defendant, it will then be necessary for you to consider the question of damages. If the plaintiff's patent is valid and has been infringed by the defendant, it is entitled at your hands to a verdict for whatever amount it has proved by the evidence that it has suffered as damage by reason of defendant's acts.

The burden of proving damages is upon the plaintiff. Damages must be proved, and not conjectured or guessed at, and the jury must find only the actual damages that are proved.

The damages to be awarded to the plaintiff must be based upon reliable and tangible evidence, sufficient to lead to a definite result. Where there is no such evidence, only nominal damages can be awarded; and by the term "nominal damages" is meant one dollar.

You will understand from what I have said that the plaintiff's right to a verdict on the questions whether the patent is valid and has been infringed does not depend on its showing any substantial or specific amount of damages. If its patent is valid and has been infringed by defendant it has in law been injured, but as suggested where the proof does not enable you to find substantial damages, then it is

entitled to a verdict for nominal damages only, as I have indicated.

You will understand, gentlemen of the jury, in the Federal Court the verdict of the jury must be unanimous and [250—229] cannot be by a divided jury as under the State system. The Clerk has prepared forms of verdict as indicated by the instructions. Upon your reaching a conclusion you may report it. You may now retire.

Mr. SCRIVNER.—Does your Honor hear exceptions after the jury has retired?

The COURT.—I hear exceptions at this time.

Mr. SCRIVNER.—The defendant wishes to take exceptions to that part of the Court's instructions upon the subject of sufficiency of invention. I could not take the instructions down but I suppose that those I except to may be written out afterwards?

The COURT.—State the substance of those that you take exception to.

Mr. SCRIVNER.—And also upon the subject that the plaintiff here in determining the question of infringement was entitled to the doctrine of equivalent at all, and that the lock seam or lap seam joint may be considered the equivalent of the flanged joint; and again that any other joint that the jury may find to accomplish the same result may be adopted instead of the flanged joint, described and mentioned in claim two. We also except to the failure of the Court to give some of the instructions asked for by the defendant, which I will designate by number. I suppose that will be sufficient.

The COURT.—That is all that is necessary.

Mr. SCRIVNER.—Request one.

The COURT.—You will understand, of course, that where an instruction consists of several paragraphs not separately numbered the Court considers it a single instruction.

Mr. SCRIVNER.—Request two, three, four.  
[251—230]

Mr. MILLER.—These will be filed with the clerk so that I may have access to them afterwards?

The COURT.—The copy furnished me, Mr. Miller, will be filed with the clerk.

Mr. SCRIVNER.—(Continuing.) Five, six, seven, eight, nine.

The COURT.—You will find that in some instances I have extracted the principle stated in the instructions and have not given them in the extended form requested.

Mr. SCRIVNER.—(Continuing.) Ten, eleven, twelve, thirteen, fourteen and fifteen. I do not want to make any mistake about this. I see some of them here that are not numbered.

The COURT.—You can say also refusal to give instructions under the head of anticipation, infringement and damages.

Mr. SCRIVNER.—Also the refusal of the Court to give instructions under the head of anticipation, infringement and damages. Also the refusal to give instructions with specific reference to the Villy patent.

The COURT.—I do not charge on the facts. The facts are for the jury.

Mr. SCRIVNER.—I think that will cover it.

The COURT.—Have you any exceptions, Mr. Miller?

Mr. MILLER.—No, sir, we have no exceptions.  
(At 4:15 the jury retired for deliberation.)

The COURT.—Will it be understood, gentlemen, should the jury send in for any of these exhibits that the marshal may take them in?

Mr. ACKER.—Yes.

Mr. MILLER.—Yes. [252—231]

(At 4:45 the jury returned into court.)

The CLERK.—Gentlemen of the jury, have you agreed upon a verdict?

The FOREMAN.—We have.

(The verdict is handed by the foreman to the Clerk by the Clerk of the Court, and by the Court back to the Clerk.)

The CLERK.—Gentlemen of the jury, harken unto your verdict as recorded: “We, the jury, find in favor of the plaintiff and assess the damages against the defendant in the sum of \$3578.00.” Is that your verdict?

JURORS.—Yes.

The COURT.—Do you wish the jury polled?

Mr. SCRIVNER.—No, sir.

The COURT.—I am glad to say that I can now excuse you for quite a period. You will be excused now until Friday, October 18th, 1912, at ten o’clock A. M.

Mr. SCRIVNER.—I would like to get an order staying execution for sixty days. We propose to take an appeal in this case and it will take some time to prepare it.

The COURT.—Is there any objection to the sixty days being granted.

Mr. MILLER.—No, sir.

The COURT.—That does not stay the entry of the judgment but stays proceedings.

Mr. MILLER.—It stays execution.

The COURT.—Stays execution for sixty days.  
[253—232]

**[Exceptions to Instructions Given, etc.]**

At the conclusion of said charge, the defendant excepted to that part of the charge upon the subject of sufficiency of invention; also upon the subject that the plaintiff in determining the question of infringement was entitled to the doctrine of equivalents at all; also that the lock seam or lap seam joint may be considered the equivalent of the flanged joint; also that any other joint that the jury may find to accomplish the same result may be adopted instead of the flanged joint described and mentioned in claim 2, and as to said points defendant hereby tenders this its bill of exceptions for the Court to sign and seal, and the Court does hereby sign and seal the same.

**DEFENDANT'S EXCEPTIONS TO INSTRUCTIONS  
ASKED FOR BY DEFENDANT  
AND REFUSED BY THE COURT.**

**I.**

“In view of the action of the patent office as disclosed in the file-wrapper and contents and the prior [254—233] art as established by undisputed testimony, the plaintiff's patent necessarily belongs to a class which is very narrow, and the patentee is

limited to the precise device or devices and combinations shown and claimed in his patent.

The plaintiff's patent is in no sense a primary or a pioneer patent. It evidently belongs to an old art which appears to have advanced step by step for many years as the demand of the trade required. If, therefore, you find from the evidence that the defendant has not made, used or sold a horn for phonographs of the precise description, construction and mode of operation disclosed in one or more of the claims mentioned in the patent, then you must find for the defendant."

## II.

"It is a well established rule of law that the patentee cannot make an infringement of the thing from which he differentiated his invention in order to obtain his patent. 191 F. R. 588.

It appears from the file-wrapper of this case that the patentee sought to patent a claim reading as follows: 'A horn for phonographs and similar machines, said horn being tapered in the usual manner and the body thereof on the outer side thereof being provided with longitudinally arranged ribs substantially as shown and described.' This [255—234] claim was rejected. You will notice that it called for a horn of the usual form, the body on the outside thereof being provided with longitudinally arranged ribs. In other words, it simply means a phonographic horn tapering in the usual manner with ribs longitudinally arranged on the outside thereof. This claim having been rejected, of course, the patentee cannot now claim that a horn con-

structed in the usual manner simply with longitudinal ribs arranged upon it can be held to be an infringement of the patent."

### III.

"The patentee also endeavored to have a claim allowed to him in his patent reading as follows: 'A horn for phonographs and similar instruments, said horn being larger at one end than the other and being composed of longitudinal tapered strips which are secured together at their edges, which are substantially as shown and described.' This claim was also rejected, consequently, the patentee of the patent in this action cannot claim that a phonographic horn simply composed of longitudinal strips secured together at their edges, is an infringement of his patent." [256—235]

### IV.

"The patentee also endeavored to have a claim allowed to him in his patent reading as follows: 'A horn for phonographs and similar machines, said horn being tapered in the usual manner and the body thereof on the outer side thereof being provided with longitudinally arranged ribs between which the longitudinal parts of the horn tapered from one end to the other, substantially as shown and described.' This claim was rejected. This claim, no doubt, was intended to cover, and had it been allowed it would have covered, any phonographic horn tapered from one end to the other and having longitudinally arranged ribs between which the parts of the horn taper.

You will notice that this claim did not mention a

plurality of strips or any strips. It would have only required that a horn should be made in any manner, that is either in one piece or a plurality of pieces or strips and then arrange the ribs on the body of the horn on the outside in any suitable manner, the horn tapering from end to end. Of course, if it tapered from end to end and the ribs were arranged on the body of the horn, the tapering would necessarily be between the ribs. At any rate, whatever might be the meaning of this claim, it was rejected and the Court instructs you that this claim having been rejected the plaintiff cannot claim as an infringement a horn tapering in the usual manner from end to end and the outside of the body thereof being provided with longitudinally arranged ribs.

[257—236]

Applying these remarks to the case in hand, the Court instructs you that exhibits ——— could not be held as an infringement of the plaintiff's patent because they appear to have been constructed substantially as described in the last mentioned rejected claim, even though you call the seamed union with its necessary protuberance, a rib.

The patentee, upon a rejection of these claims, abandoned them and accepted his patent without them and consequently, he is bound by this action, and phonographic horns when constructed according to these claims are not infringements of his patent, and all that was so abandoned is now public property and free of the patent monopoly."

V.

"Taking up the claims of the patent in the order

in which they appear therein, the Court instructs you that claim 1 of the patent covers only a phonographic horn, the body portion of which is composed of longitudinally arranged strips of metal provided at their edges with longitudinally outwardly directed flanges, whereby said strips are connected and whereby the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs, substantially as shown and described. In plain language [258—237] this means simply a horn composed of strips of metal having their longitudinal edges made with an outwardly directed flange by means of which the said strips are connected or fastened together and this joint forming the longitudinally arranged ribs. Consequently, unless you find that the defendant has made, used or sold phonographic horns, the body portion of which is composed of longitudinally arranged strips of metal having outwardly flanged edges whereby said strips are connected, and the joint thus formed providing on the outside of the horn longitudinally arranged ribs, then you must find for the defendant."

## VI.

"The Court further instructs you that the second claim of this patent is the same as the first with the exception that it specifically calls for the strip being tapered from one end of said horn to the other, and the same instruction that the Court has given you concerning claim 1 applies with equal force to claim 2." [259—238]

## VII.

"The Court further instructs you that claim 3

covers simply a phonographic horn larger at one end than the other and tapered as usual, said horn being composed of these same longitudinally arranged strips which are secured at their outer edges and at the points where said strips are secured together forming the same longitudinal ribs mentioned in the other two claims. The method of securing the edges of the strips is no part of this claim.

You will notice that all of the claims cover longitudinally arranged strips and longitudinally arranged ribs. The first and second claims, however, specifically mention the outwardly directed flanges out of and from which the ribs are formed; while the third claim does not mention the flanges, but simply describes the strips which must be secured together at their edges and of longitudinal ribs provided at the points where the edges are secured together.

The union of the strips or longitudinal seams constitute one element of the claim and the ribs provided at such point of union of the strips another element of the claim, and it is necessary that these two elements arranged as described be present in order to constitute an infringement of the claim. In other words, claim 3 differs from claim 1 and 2 inasmuch as it requires the formation of a seam or joint union of the strips and the formation of a rib on the outside thereof, without mentioning the manner of uniting the edges of the strips. [260—239]

#### VIII.

“You will notice that assuming that there is any invention covered by any of these claims, the invention is a very narrow one as hereinbefore stated, and

while, as a rule of law, all patents are to some extent entitled to the application of the doctrine of equivalents, however, in a patent so limited by the prior art as the one in suit must be, the application of the doctrine of equivalents is likewise limited."

### IX.

"The patentee, in his specifications, states that the object of his phonographic horn is to provide one which will do away with the mechanical, vibratory and metallic sound usually produced in the operation of such machines, and also to produce a full, even and continuous volume of sound in which the articulation is clear, full and distinct. This, he claims, is accomplished by making up his horn with these longitudinally arranged strips with a rib arranged along the line of union of the strips. It is not explained anywhere in the patent how the making of the horn with metallic strips with the edges flanged or unflanged and a rib formed along the line of union can do away with the mechanical, vibratory or metallic sound usually produced in the operation of such machines; nor is there any evidence to show that in the [261—240] prior horns they were in fact troubled with any mechanical, vibratory or metallic sound. Neither does the patent anywhere disclose what number of these strips give the best results. The specification simply mentions the body portion of the horn being composed of a plurality of these strips. Two strips is a plurality. Now, whether two strips are better than two dozen strips, or whether two dozen strips are better than two strips, is not explained. Assuming, however, that the strips and the ribs are what pro-

duce the effect desired, a logical conclusion would seem to be, that the greater the number of strips and ribs used in the construction of the horn the greater would be the effect in reducing or doing away with the mechanical, vibratory or metallic sound which the patent says is usually produced in the operation of such machines, and that the sound would be fuller, more even and of a more continuous volume and in which the articulation would be clearer, fuller and more distinct.

Reducing this proposition to its logical limits, it might be said that if the entire body of the horn was made up of very narrow strips so that the ribs would be absolutely contiguous to each other, that then it would be a better horn than it is when constructed with only two strips and two ribs.

I mention these things to you because the law requires that every patentee shall describe the invention in his patent, in such full, clear and exact terms as to enable anyone skilled in the art to make, construct or use the invention patented. He should not leave anything to speculation or experiment, and in this case, it is clear, that the patentee has not given the public any knowledge [262—241] of what number of strips and ribs produce the effect desired. It may be that a phonographic horn made of two strips and two ribs would not have any effect whatever in doing away with the mechanical, vibratory and metallic sound usually produced in the operation of such machines. Now, horns prior to this patent, and in the early stages of the art, were made in one strip with one seam uniting the two edges, and evi-

dently this is the class of horns that the patentee refers to when he says that he wishes to do away with the mechanical, vibratory and metallic sound *usually produced in the operation of such machines.*”

X.

“A horn is produced in evidence by the defendant which appears to be one made with two strips of metal united by two seams, but there is no evidence tending to show whether it would not accomplish the objects sought by this patent. The evidence shows that metallic horns tapering substantially as the plaintiff’s patented horn, with the strips united by longitudinal joints or seams as all metallic seams have to be made, were in existence long prior to the plaintiff’s patent. Metallic horns for phonographs as a specialty are of recent date and within the memory perhaps of all of us, but the difference in construction between the old metallic horn and the patented horn seems to be one that might suggest itself to any skilled mechanic or expert who knew, if it is [263—242] a fact, that the old style horn did cause a mechanical vibratory and metallic sound. This, however, is a question of fact for you to determine.

The real cause, if any, why these ribs and strips produce this effect, was, because they tended to strengthen the body of the horn, and it may be assumed, that if the same strength was given to the body of the horn by an addition of metal, the same result would necessarily be produced.”

XI.

“Now, the Court instructs you that it is not invention to produce a machine which any skilled expert

mechanic, who knows that the old, old horns were objectionable on account of the mechanical vibratory and metallic sound produced by them, could produce whenever required.

The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in [264—243] principle and injurious in its consequences. The design of the patent laws is to reward those who make some substantial discovery or invention which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It is never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers, who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax

upon the industry of the country without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith.

Would not a skilled expert in this art who knew that on account of the weakness of the body of the horn, this vibratory and metallic sound was produced, also know that if he added a sufficient amount of metal to the body of the horn, that it would tend to strengthen and prevent it, and would he not also know that this result might be produced by any other means of strengthening the body of the horn, and would he not know that you might strengthen the body of the horn by the addition of a sufficient number of ribs, so-called, as well as in any other way. Ribs in the [265—244] mechanic arts are something that is very ancient, and used for a great many purposes, and usually for the purpose of strengthening the body of something. It is defined by Webster as being ‘A bar, strip, rod or the like used to support, strengthen or shape something, as a rib of an umbrella cover,’ also ‘A ridge, fin or wing as on a plate, cylinder, beam, etc., to strengthen or stiffen it; a prominent line or ridge in woven or knitted goods; a longitudinal strip of metal uniting the barrels of a double-barrel gun; a curved side connecting the front and back of an instrument of the violin class.’ ”

## XII.

“Hence the question of invention is simmered down to the simple proposition as to whether or not

the mere strengthening of the body of these phonographic horns by means of the addition of a well-known mechanical device called a rib, involved any patentable invention. This is a question for you to determine from all the facts and the evidence in the case and the law as given you by the Court.

The Court instructs you upon this subject that it is the presumption of law that every patentee is or was fully acquainted with the state of the art concerning his invention when he applied for his patent or built his machine. Even if he were not as a matter of fact so acquainted with the [266—245] prior art, still the law presumes that he was so acquainted with it, and he is not permitted to advance his claim of invention by denying it.

In this case the inventor and patentee of the patent in suit was conclusively presumed to know of the existence of all the horns for phonographs as well as for every other purpose then in existence. He was supposed to know how they were constructed; what the effect or results of each of them were, and the function of each element or factor making up the same, and how far they were successful and to what extent they were defective. He was also presumed to have known the existence of the phonographic horns of the prior art made in a number of pieces, or longitudinally disposed strips united at their edges to form longitudinal seams, and that no two pieces of metal could be united by the joining of the longitudinal edges without creating a seam, and therefore, he of necessity, had in mind and contemplated the formation of something else than a mere seam by the ex-

pression in his patent of a rib. Or in other words, he distinguished between a seam and a rib and knew that in the joining of his strips to form the horn that there existed not only a seam or joint union between the edges of the longitudinal strips, but in addition thereto there existed an outward protrusion which formed a strengthening rib or ribs for the horn, and his patent in order to be valid must be for something far beyond anything in the prior art as to really and in fact call into action the exercise of really inventive genius. The mere discovery of some new idea, or something that is believed to be new and useful, is not the question and is not invention. The word discovery as used in the patent law means identically the same as invention and [267—246] invention must be involved in every patent in order that it be valid.

The term "invention" is not easily defined. It may be perfectly obvious in one case, and in another case its absence may be equally obvious. But it is difficult, if not impossible, to give it a definition which can apply to all cases. Its presence or absence generally depends upon the condition and circumstances of the particular case where it is in question. It must in every case, however, be something more than the mere exercise of that skill which the mechanic has by reason of the ordinary knowledge which is the incident to his occupation, and general knowledge of the subject.

The invention to be patentable must be both new and useful and the patentee must be the first and original inventor of such new and useful invention; it must involve something more than the exercise of

mere mechanical skill or judgment, for invention is and must be the product of original thoughts. It involves the spontaneous conception of some idea not previously present to the mind of the inventor. Industry in exploring the discoveries and acquiring the ideas of others; wise judgment in selecting and combining their mechanical skill in applying them to practical results; none of these are creations; none of these enter into the inventive act. A mere carrying forward, or new or more extended application of an original thought; a change only in form proportions, or degree; the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results; is not such invention as will sustain a patent. These rules apply [268—247] alike whether what preceded was covered by a patent or rested only in public knowledge and use.”

### XIII.

“Applying these rules of law directly to the case in hand, you will take the defendant’s exhibits —— which are shown by the testimony, and if you believe them or either of them to have been made or used long prior to the date of the plaintiff’s patent or the application therefor, as testified to, you will examine their construction and their mode of operation; you will ascertain how the joints are formed as shown by the models and the testimony, and what sort of protuberances there are on the outside and how they are formed, and if you find that they show a horn made up of a plurality of strips, no difference how many or how few, so there is more than one, and that the pro-

tuberances on the outside are ribs in the sense of the patent in suit, and that the union of the strips are united by means of the ordinary and old lock, lap or flanged joints or seams, then you must find for the defendant.

A device may combine utility and novelty in a high degree and still be only the result of mechanical skill as distinguished from invention. A person to be entitled to a patent may have invented or discovered some new and useful art, machine, manufacture or composition of matter, or some [269—248] new or useful improvement thereof, but it is not enough that a thing be new in the sense that, in the shape or form in which it is produced, it shall not have been known, and that it be useful; but it must amount to an invention as required by the patent laws of the country. A mere difference or change in the mechanical construction in the size or form of the thing used, in order to obviate known defects existing in the previous devices, although such change be highly advantageous, and far better and more efficacious and convenient, does not make the improved device patentable. In order to be patentable, it must embody some new idea or principle not before known."

#### XIV.

"Referring again to the exhibits mentioned, the Court instructs you that the difference in the size or form of which the patent terms the 'rib' and that shown in the defendant's exhibits, would not be sufficient to constitute invention nor would any difference in the mere shape or size of the horn, and even though the patented horn might be superior to those shown

by these exhibits in producing the effect claimed by the patentee, still it would not be patentable unless some new idea, principle or function not known before was disclosed that would amount to actual invention. You will notice in some of these exhibits that they do disclose horns that are made up of a plurality of [270—249] longitudinal strips which are united by joints or seams, which it is claimed, and the evidence seems to show, was the usual and ancient method for uniting metal strips of any kind and that they show a protuberance as before stated.

And the Court further instructs you that if you find that these protuberances composed of the metal caused by the making of the joints as described, performed the same kind of service as set forth in the patent in suit, it would not be invention to make a similar horn with larger or more extended projections or protuberances, such as is claimed in the patent to be a “rib.” Even though the larger protuberance or rib of the patent might have the effect of giving the horn greater strength and thus lessening the vibratory and metallic sound, still it would not be invention and the patent would not be valid and you should find for the defendant.”

#### XV.

“A mere change in form of an old machine, or the mere rearrangement of the parts of an old machine without producing any new result, or any result or function substantially different from the result or function of the old device does not constitute invention.

If, therefore, you believe from the evidence in the

case that the plaintiff's alleged invention, if any, was merely [271—250] an adaptation of the idea and principle and function disclosed by these old horns and that the alleged patented invention consisted only of such changes in the construction of these old horns as would suggest themselves to a mechanic skilled in the art without inventive conception on his part, and that the change from the old devices to the plaintiff's device required and really involved only the skill and ingenuity of the mechanic which he had by reason of his knowledge and experience in his calling, and did not require or involve the exercise of the inventive faculties, as distinguished from such skill and ingenuity, then your verdict should be for the defendant.

And the Court further instructs you that so far as this proposition is concerned, the whole question comes down to the simple one as to whether these old horns which have been put in evidence or any of them disclose sufficient facts in their construction or mode of operation as to suggest to the patentee in this case, or any skilled mechanic, the arrangement and combination of parts shown in the patents; that is to say, with all of these old horns before him would it have required anything beyond the skill of a mechanic skilled in this art to have made such alterations and changes as may exist between the patented horn and the said old horns. If not, then the patent is void for want of invention and you must find for the defendant." [272—251]

XVI.

"The Court instructs you that where the patent

covers a combination of old elements (as in this case) and the prior devices shown to exist and to have been in public use or on sale in this country, for more than two years prior to the application for a patent, suggests the same co-operation of the same elements and upon the same principle adopted by the patentee, then the patent is anticipated and void. Old devices fully capable of a use not then observed anticipates a later patent for the application of the same means to that use. Patentability cannot rest on the observation that an old device is capable of performing a useful purpose not before noticed."

#### XVII.

"If you should finally conclude that the plaintiff's patent covers any patentable invention and is not anticipated, it will then be your duty to consider the question of infringement.

Upon this question the Court instructs you that the plaintiff's invention cannot be classified as a primary one, or the inventor as a pioneer in the art to which he devoted his attention. On the contrary, the Court instructs you that it clearly appears that the claimed invention concerns [273—252] improvements made in a well-developed art and accomplishes results which were not new, but at best, only possibly better than had been accomplished before. Therefore, the plaintiff is entitled in determining the issue of infringement or non-infringement, only to a very narrow construction of equivalents. The public should be protected against unwarranted monopoly as much as the inventor against piracy. To accomplish both of these ends the patentee is entitled

to monopolize only the specific devices of his patent with such plain equivalents which go to show a clear attempt at mere evasion. But in determining what are such equivalents, the public is bound to demand a careful scrutiny so that under the protection of his patent, the patentee shall not be allowed to improperly stifle competition and enjoy an unmerited monopoly. Again, no device can be held to infringe a combination claim, such as we have in this case, unless it employs all the elements set forth in the claims of the patent. In other words, the absence of a single element of a combination claim, in the alleged infringing structure, is fatal to the charge of infringement. A patent for a described machine or mechanism which is restricted by the prior art, must be limited to the particular means described in the specification or clear mechanical equivalents, and does not embrace or cover any other mechanical construction or mode of operation, nor can the patent be so construed as to reach out and cover anything that was old, that is, which had been made and used by the public more than two years prior to the application for the patent. [274—253]

As I have stated before, the claims of this patent call for specified means for doing certain things, that is, (a) the body portion of the horn must be composed of longitudinally arranged strips of metal formed at their edges with longitudinal outwardly directed flanges whereby said strips are connected and whereby the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs substantially as described. The third

claim omits the flanged edges of the metal strips, but the patent only shows the flanged edges of the strips as a method of uniting the edges, and it cannot claim any of the old methods of uniting the edges and forming the ribs.

The Court further instructs you that a seam made in the manner shown by the testimony of the defendant's witnesses, called lapped seams, flanged seams and locked seams, cannot be construed to make the joints called for in either of the claims of the plaintiff's patent. 'Seams or joints made in the way described and shown in the exhibits of the defendants, do not have any longitudinal outwardly directed flanges whereby the strips are connected, and if the protrusion necessarily made by the metal in making one of these old joints is to be called a 'rib,' then claims 1, 2 and 3 are clearly void as having been anticipated by the old devices referred to. It will be seen that if the protruding metal formed by the seam in the defendant's horn is a 'rib' then the protrusion on the old devices is also a 'rib,' and the patentee invented nothing and the patent would be void. Applying the same rules to the third claim, the Court instructs you that securing the strips together by means of any of these joints mentioned and shown to be old, the protrusion of metal which necessarily occurs in making such joints is not the rib mentioned [275—254] or contemplated in claim 3 of the patent, and unless the defendant has made a horn with longitudinal 'ribs' arranged along the outside of the joint where the strips are secured together, in some manner substantially different from the old

methods, there is no infringement. In other words, there must be a 'rib' as fully distinguished from a mere joint or seam with the metal protruding as is shown in the old devices put in evidence by the defendant.

The Court instructs you that unless you find that the defendant has made, used or sold phonographic horns made up of a plurality of longitudinal strips, the strips having flanged edges, which the process of uniting the said flanged edges forms a rib as contradistinguished from the old lap, lock or seam joints, then you must find the first and second claims not infringed. And unless you find that the defendant has made, used or sold phonographic horns made up of a plurality of longitudinal strips united at their edges by some means substantially different from the old methods of uniting the edges of metal strips and and at the point of such union of such strips has formed and attached longitudinal ribs along the line of union, said ribs being different from the natural protrusion of uniting the edges of metal strips under the old methods, then you must find that claim 3 is not infringed and your verdict must be for the defendant.

And the Court further instructs you that if you find the seam uniting the edges of the longitudinal strips of the defendant's horn to be constructed in the same or substantially the same manner as the seam which unites the longitudinal edges of the strips in the horns of the prior art, as indicated by defendant's exhibits, then the Court [276—255] instructs you that there can be no infringement, and

also that if you find the seam of the defendant's horn to be the same as the seam of the plaintiff's horn and also the same as the seams of the horns of the prior art, as indicated by the mentioned exhibits, then the patent sued on is invalid, or as commonly termed, anticipated by the prior art and you must find for the defendant.

And the Court further instructs you that the letters patent in suit does not cover the shape, configuration, color or general appearance of the horn disclosed thereby, but is confined to the manner of constructing the same by the joint union therein set forth and described for the production of longitudinally disposed strengthening ribs on the exterior surface of the horn, and, therefore, you will ignore the general shape, configuration, color or general appearance of the horns in determining the question of infringement. In other words, the shape, configuration, color or general appearance is not at issue, for such is the subject matter of design letters patent, which is not herein involved. You will, therefore, disregard the general appearance of the horns in arriving at your conclusion on the question of infringement, and confine yourself to the question as to whether the defendant's horn is constructed in the same manner for the production on the exterior of the horn of longitudinally disposed strengthening ribs of complainant's horn and within the meaning of the disclosure of the letters patent in suit.

Finally the Court instructs you that in a suit of this kind for the infringement of a patent, that upon the question of infringement, as well as all the other

questions involved in the case, the burden of proof is upon the plaintiff. And the Court instructs you that unless you find [277—256] from the evidence that the defendant has made, used or sold a horn for phonographs, the body portion of which is composed of a plurality of longitudinal strips, which are gradually tapered from one end to the other, and which are connected longitudinally, so as to form longitudinal ribs on the exterior surface of the horn, each of the strips being provided at its edge with a flange, and these flanges of the separate strips being connected and forming the ribs mentioned in the letters patent in suit, your verdict must be for the defendant.

And the Court further instructs you that in view of the evidence in this case, the plaintiff's patent cannot be construed to cover any other kind of a horn than that described and shown in the patent in suit, his invention being limited to the precise construction described. In his description he says that 'It is the construction of the body portion of the horn, as hereinbefore described, that gives thereto the qualities which it is the object of this invention to produce.'

The patentee was compelled to illustrate and describe, and has specifically described his invention and how it is constructed, and as the result sought by him *were* produced by the specific construction described, and in view of the evidence of the prior art and the action of the patent office with reference to the allowance of the patent, the patentee is confined to his precise construction and description; and the Court further instructs you that in order to find

a verdict of infringement against the defendant in this case you must be satisfied from the evidence in the case, beyond a reasonable doubt, that the plaintiff has made, used or sold such a horn as I have described, and if you find that [278—257] the defendant has not made, used or sold such a horn, then your verdict must be for the defendant.”

### XVIII.

“The defendant has introduced in evidence a patent issued to one Villey, dated ———, 1903, for the purpose of anticipating the plaintiff’s patent. The plaintiff’s expert witnesses as well as the defendant’s, testified point blank that the machine described in this patent was constructed in the same manner as the machine described in the plaintiff’s patent, and in fact was the same thing. If you believe this to be true, the Court instructs you that the plaintiff’s patent is void for want of novelty and invention and you should find for the defendant.

In determining the question as to the invention made by Neilsen, the patentee, you must consider all of the evidence and exhibits introduced which was shown to have been in use prior to the date of the plaintiff’s patent and see if there is any substantial difference which involved invention to produce between these old horns of the prior art and that covered by the patent under the rules of law given to you by the Court, and if you should find that there is invention, the next question is what was the invention of the patentee, and whether the defendant has sold any horns [279—258] such as comes within the terms of the patent as explained to you by the Court,

and if defendant has not sold any such horns your verdict must be for the defendant.”

To which refusal of the Court to give said above-recited instructions to the jury, the defendant, by its counsel, did then and there in the language herein-after stated, except, and hereby tenders this, its Bill of Exceptions, for the Court to sign and seal, and the Court does hereby sign and seal the same.

AND NOW, in furtherance of justice, and that right may be done, the defendant, by its counsel, presents the foregoing as its Bill of Exceptions in this case and prays that the same may be settled and allowed and certified and signed by the Judge, as provided by law.

N. A. ACKER,  
J. J. SCRIVNER,

Attorneys for Defendant. [280—259]

**Order Settling, etc., Bill of Exceptions.**

The matter of the settlement of the foregoing Bill of Exceptions having been continued by stipulation of the parties and by order of the Court to this 14th day of July, 1913, the said defendant's Bill of Exceptions is now hereby settled and allowed by me as a true Bill of Exceptions in said cause.

WM. C. VAN FLEET,  
Judge. [281]

Service of the above and foregoing proposed Bill of Exceptions, and receipt of a copy thereof within the time as provided for by law and the rule of this Court as heretofore extended by the Court, this 9th

day of May, 1913, is hereby admitted.

MILLER & WHITE,  
Attys. for Plff.

Due service and receipt of a copy of the **within**  
Engrossed Bill of Exceptions is hereby admitted this  
12th day of July, 1913.

MILLER & WHITE,  
Attys. for Plff.

[Endorsed]: Filed July 14, 1913. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [282]

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*In the District Court of the United States, in and for  
the Northern District of California, Second  
Division.*

SEARCHLIGHT HORN COMPANY (a Corpora-  
tion),

Plaintiff,

vs.

SHERMAN CLAY & COMPANY (a Corporation),  
Defendant.

**Petition for Writ of Error.**

Sherman Clay & Company, defendant in the above-entitled action, feeling itself aggrieved by the verdict of the jury and the judgment entered thereon on the 4th day of October, 1912, whereby it was adjudged that the defendant had infringed the letters patent of the plaintiff herein sued upon, and that the plaintiff have and recover of and from the defendant the sum of Three Thousand Five Hundred and Seventy-eight Dollars damages and costs, comes now, N. A. Acker and J. J. Scrivner, its attorneys, and

prays this Court for an order allowing the said defendant to prosecute a writ of error to the United States Circuit Court of Appeals for the Ninth Circuit, under and according to the laws of the United States in that behalf made and provided; and also that an order be made fixing the amount of security which the defendant shall give, and that upon the giving of such security all further proceedings in this Court be suspended and stayed until the determination of [283] the said writ of error by the said Court of Appeals.

And your petitioner will ever pray, etc.

Dated May 16th, 1913.

N. A. ACKER,

J. J. SCRIVNER,

Attorneys for Defendant.

[Endorsed]: Filed May 17, 1913. W. B. Maling.  
Clerk. By J. A. Schaertzer, Deputy Clerk. [284]

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*In the District Court of the United States, in and for  
the Northern District of California, Second Division.*

SEARCHLIGHT HORN COMPANY (a Corporation),

Plaintiff,

vs.

SHERMAN CLAY & COMPANY (a Corporation),  
Defendant.

**Assignment of Errors.**

Now comes Sherman Clay & Company, a corporation, the defendant above named, by N. A. Acker and

J. J. Scrivner, its attorneys, and assigns and specifies the following as the errors which it asserts and intends to urge and upon which it will rely in the prosecution of the Writ of Error for which it prays in this cause.

### I.

The said Court erred in refusing to permit the plaintiff's witness, Christian Krabbe, to answer at the trial the following question:

“Does a horn of that character conform to the patent in suit?”

(Referring to the so-called Villy patented horn.)

### II.

The said Court erred in refusing to grant defendant's motion for a nonsuit at the close of the plaintiff's testimony.

### III.

The said Court erred in refusing to admit in [285] evidence on behalf of the defendant United States re-issue Letters Patent No. 12,442, granted G. H. Villy, January 30, 1906, for improvement in horns for phonographs, ear trumpets, etc., the same being a re-issue of United States Letters Patent No. 739,954, granted G. H. Villy, under date of September 29, 1903, and being Defendant's Exhibit “O.”

### IV.

The said Court erred in refusing to permit the defendant's witness, Wm. H. Smyth, to answer at the trial the following question:

“With the patent in suit before you, will you please compare the device therein disclosed with the devices which you find in ‘Defendant's

Exhibit Tea Tray Horn No. 20,' and state such differences and similarities as you find existing between the two."

V.

The said Court erred in refusing to grant the defendant's motion made at the close of the testimony in the case, which said motion reads as follows:

"The defendant moves the Court that the jury be directed to find a verdict for the defendant upon the ground that claims two and three of the patent in suit are void for want of patentable invention, and, second, that neither of said claims have been infringed by the defendant."

VI.

The said Court erred in instructing the jury as follows:

"The horn is constructed of metal strips secured together at their longitudinal edges by a seam, which produces ribs on the outside of the horn. In the patent [286] this seam is shown as being a flanged or butt seam, and these flanges extend outwardly thereby forming longitudinal ribs on the outside of the horn; the sheet metal strips are curved and flexed outwardly, but this curve is more abrupt adjacent to the outlet of the horn or the mouth or large end, thereby producing a bell-shaped horn with a flaring outlet. This is the mechanical structure described in the specification, and after specifying the method of construction the patentee has added the following clause."

## VII.

The said Court erred in instructing the jury as follows:

“Now, the invention actually covered by the patent does not reside in the particular form of the seam which joins the metal strips together. If the same result produced by the flanged seam shown in the patent as joining the metal strips together is obtainable by any other usual form of seam known at the time of Neilsen’s invention which operates in substantially the same way to produce the same result, then the substitution of such a seam would not be a departure from the invention, but would be within its real and true scope. The invention of Neilsen consists in the production of a horn for phonographs and similar instruments consisting of a combination of the various elements hereinabove [287] described by me, and the essential characteristics of the Neilsen horn are the following:

1. It must be composed of a multiplicity of metal strips secured together at their longitudinal edges by a seam.

2. This seam must be of such construction as to produce longitudinal ribs on the outer surface of the horn.

3. The strips are narrower in cross section at the inner end than at the outer end.

4. The strips must curve outwardly from the inner to the outer end, but the curve is more abrupt adjacent to the outer end.

“Now, combining these elements together in

this way, Neilsen produced a horn for phonographs and similar machines larger at one end than the other and having substantially a bell shape and abruptly flaring outlet made up of longitudinally arranged metal strips secured together at their outer edges by a seam of such character as to produce longitudinal ribs on the outer surface."

### VIII.

The said Court erred in instructing the jury as follows:

"No more exact definition can readily be given you of what constitutes invention as distinguished from mere mechanical skill; but there is one established principle or rule which can be easily understood and followed in determining that question whenever the facts of the case make it applicable. That rule is that in a doubtful case [288] if it appears by the evidence that the patented device has gone into general use and has superseded prior devices having the same purpose, that fact is sufficient evidence of invention and is valid."

### IX.

The said Court erred in instructing the jury as follows:

"If, therefore, you find that at the date of Neilsen's invention the lock seam was a mechanical equivalent to the flanged or butt seam in the sheet metal art, and that they both accomplished the same result in substantially the same manner as a seam and rib when used in phonograph

horns, then you must find that the two things are mechanical equivalents and that the defendant is not relieved from the charge of infringement merely because its horns use the lock seam instead of the flanged or butt seam."

X.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"In view of the action of the patent office as disclosed in the file-wrapper and contents and the prior art as established by undisputed testimony, the plaintiff's patent necessarily belongs to a class which is very narrow, and the patentee is limited to the precise device or devices and combinations shown and claimed in his patent.

"The plaintiff's patent is in no sense a primary or a pioneer patent. It evidently belongs to an old art which appears to have advanced step by step for many years [289] as the demand of the trade required. If, therefore, you find from the evidence that the defendant has not made, used or sold a horn for phonographs of the precise description, construction and mode of operation disclosed in one or more of the claims mentioned in the patent, then you must find for the defendant."

XI.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"It is a well-established rule of law that the patentee cannot make an infringement of the

thing from which he differentiated his invention in order to obtain his patent. 191 F. R. 588.

“It appears from the file-wrapper of this case that the patentee sought to patent a claim reading as follows: ‘A horn for phonographs and similar machines, said horn being tapered in the usual manner and the body thereof on the outer side thereof being provided with longitudinally arranged ribs substantially as shown and described.’ This claim was rejected. You will notice that it called for a horn of the usual form, the body on the outside thereof being provided with longitudinally arranged ribs. In other words, it simply means a phonographic horn tapering in the usual manner with ribs longitudinally arranged on the outside thereof. This claim having been rejected, of course, the patentee cannot now claim that a horn constructed in the usual manner simply with longitudinal ribs arranged upon it can be held to be an infringement of the patent.” [290]

## XII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“The patentee also endeavored to have a claim allowed to him in his patent reading as follows: ‘A horn for phonographs and similar instruments, said horn being larger at one end than the other and being composed of longitudinal tapered strips which are secured together at their edges, which are substantially as shown

and described.' This claim was also rejected, consequently, the patentee of the patent in this action cannot claim that a phonographic horn simply composed of longitudinal strips secured together at their edges, is an infringement of his patent."

### XIII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"The patentee also endeavored to have a claim allowed to him in his patent reading as follows: 'A horn for phonographs and similar machines, said horn being tapered in the usual manner and the body thereof on the outer side thereof being provided with longitudinally arranged ribs between which the longitudinal parts of the horn tapered from one end to the other, substantially as shown and described.' This claim was rejected. This claim, no doubt, was intended to cover, and had it been allowed it would have covered, any phonographic horn tapered from one end to the other and having longitudinally arranged ribs between which the parts of the horn taper.

"You will notice that this claim did not mention a [291] plurality of strips or any strips. It would have only required that a horn should be made in any manner, that is, either in one piece or a plurality of pieces or strips and then arrange the ribs on the body of the horn on the outside in any suitable manner, the horn taper-

ing from end to end. Of course, if it tapered from end to end and the ribs were arranged on the body of the horn, the tapering would necessarily be between the ribs. At any rate, whatever might be the meaning of this claim, it was rejected and the Court instructs you that this claim having been rejected the plaintiff cannot claim as an infringement a horn tapering in the usual manner from end to end and the outside of the body thereof being provided with longitudinally arranged ribs.

“Applying these remarks to the case in hand, the Court instructs you that exhibits ——— could not be held as an infringement of the plaintiff’s patent because they appear to have been constructed substantially as described in the last mentioned rejected claim, even though you call the seamed union with its necessary protuberance, a rib.

“The patentee, upon a rejection of these claims, abandoned them and accepted his patent without them, and consequently, he is bound by this action, and phonographic horns when constructed according to these claims are not infringements of his patent, and all that was so abandoned is now public property and free of the patent monopoly.”

#### XIV.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant: [292]

“Taking up the claims of the patent in the

order in which they appear therein, the Court instructs you that claim 1 of the patent covers only a phonographic horn, the body portion of which is composed of longitudinally arranged strips of metal provided at their edges with longitudinally outwardly directed flanges, whereby said strips are connected and whereby the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs, substantially as shown and described. In plain language this means simply a horn composed of strips of metal having their longitudinal edges made with an outwardly directed flange by means of which the said strips are connected or fastened together and this joint forming the longitudinally arranged ribs. Consequently, unless you find that the defendant has made, used or sold phonographic horns, the body portion of which is composed of longitudinally arranged strips of metal having outwardly flanged edges whereby said strips are connected, and the joint thus formed providing on the outside of the horn longitudinally arranged ribs, then you must find for the defendant."

#### XV.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"The Court further instructs you that the second claim of this patent is the same as the first with the exception that it specifically calls for

the strip being tapered from one end of said horn to the other, and the same instruction that the Court has given you concerning claim 1 applies with equal force to claim 2." [293]

### XVI.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"The Court further instructs you that claim 3 covers simply a phonographic horn larger at one end than the other and tapered as usual, said horn being composed of these same longitudinally arranged strips which are secured at their outer edges and at the points where said strips are secured together forming the same longitudinal ribs mentioned in the other two claims. The method of securing the edges of the strips is no part of this claim.

"You will notice that all of the claims cover longitudinally arranged strips and longitudinally arranged ribs. The first and second claims, however, specifically mention the outwardly directed flanges out of and from which the ribs are formed; while the third claim does not mention the flanges, but simply describes the strips which must be secured together at their edges and of such joints forming the same longitudinal ribs.

"The union of the strips or longitudinal seams constitute one element of the claim and the formation of the ribs at such point of union of the seams another element of the claim, and

it is necessary that these two elements be present in order to constitute an infringement of the claim. In other words, claim 3 differs from claims 1 and 2 inasmuch as it required the formation of a seam or joint union and the formation of a rib adjacent such formed seam.”

#### XVII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant: [294]

“You will notice that assuming that there is any invention covered by any of these claims, the invention is a very narrow one as hereinbefore stated, and while, as a rule of law, all patents are to some extent entitled to the application of the doctrine of equivalents, however, in a patent so limited by the prior art as the one in suit must be, the application of the doctrine of equivalents is likewise limited.”

#### XVIII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“The patentee, in his specifications, states that the object of his phonographic horn is to provide one which will do away with the mechanical, vibratory and metallic sound usually produced in the operation of such machines, and also to produce a full, even and continuous volume of sound in which the articulation is clear, full and distinct. This, he claims, is accomplished by making up his horn with these longitudinally

arranged strips with a rib arranged along the line of union of the strips. It is not explained anywhere in the patent how the making of the horn with metallic strips with the edges flanged or unflanged and a rib formed along the line of union can do away with the mechanical, vibratory or metallic sound usually produced in the operation of such machines; nor is there any evidence to show that in the prior horns they were in fact troubled with any mechanical vibratory or metallic sound. Neither does the patent anywhere disclose what number of these strips give the best results. [295] The specification simply mentions the body portion of the horn being composed of a plurality of these strips. Two strips is a plurality. Now, whether two strips are better than two dozen strips, or whether two dozen strips are better than two strips, is not explained. Assuming, however, that the strips and the ribs are what produce the effect desired, a logical conclusion would seem to be, that the greater the number of strips and ribs used in the construction of the horn the greater would be the effect in reducing or doing away with the mechanical, vibratory or metallic sound which the patent says is usually produced in the operation of such machines, and that the sound would be fuller, more even and of a more continuous volume and in which the articulation would be clearer, fuller and more distinct.

“Reducing this proposition to its logical lim-

its it might be said that if the entire body of the horn was made up of very narrow strips so that the ribs would be absolutely contiguous to each other, that then it would be a better horn than it is when constructed with only two strips and two ribs.

“I mention these things to you because the law requires that every patentee shall describe the intention in his patent, in such full, clear and exact terms as to enable any one skilled in the art to make, construct or use the invention patented. He should not leave anything to speculation or experiment, and in this case it is clear, that the patentee has not given the public any knowledge of what number of strips and ribs produce the effect desired. It may be that a phonographic horn made of two strips and two ribs would not have any effect whatever in doing away [296] with the mechanical, vibratory and metallic sound usually produced in the operation of such machines. Now, horns prior to this patent, and in the early stages of the art, were made in one strip with one seam uniting the two edges and evidently this is the class of horns that the patentee refers to when he says that he wishes to do away with the mechanical vibratory and metallic sound *usually produced in the operation of such machines.*”

#### XIX.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“A horn is produced in evidence by the defendant which appears to be one made with two strips of metal united by two seams, but there is no evidence tending to show whether it would not accomplish the objects sought by this patent. The evidence shows that metallic horns tapering substantially as the plaintiff’s patented horn, with the strips united by longitudinal joints or seams as all metallic seams have to be made, were in existence long prior to the plaintiff’s patent. Metallic horns for phonographs as a specialty are of recent date and within the memory perhaps of all of us, but the difference in construction between the old metallic horn and the patented horn seems to be one that might suggest itself to any skilled mechanic or expert who knew, if it is a fact, that the old style horn did cause a mechanical vibratory and metallic sound. This, however, is a question of fact for you to determine.

“The real cause, if any, why these ribs and strips produce this effect, was, because they tended to strengthen [297] the body of the horn, and it may be assumed, that if the same strength was given to the body of the horn by an addition of metal, the same result would necessarily be produced.”

## XX.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“Now, the Court instructs you that it is not

invention to produce a machine which any skilled expert mechanic, who knew that the old horns were objectionable on account of the mechanical vibratory and metallic sound produced by them, could produce whenever required.

“The process of development in manufacture creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in principle and injurious in its consequence. The design of the patent laws is to reward those who make some substantial discovery or invention which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It is never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea which would naturally [298] and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture. Such an indiscriminate creation of exclusive privileges tends rather to . . . obstruct than to stimulate invention. It creates a class

of speculative schemers, who make it their business to watch the advancing wave of improvement and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith.

“Would not a skilled expert in this art who knew that on account of the weakness of the body of the horn, this vibratory and metallic sound was produced, also know that if he added a sufficient amount of metal to the body of the horn, that it would tend to strengthen and prevent it, and would he not also know that this result might be produced by any other means of strengthening the body of the horn, and would he not know that you might strengthen the body of the horn by the addition of a sufficient number of ribs, so-called, as well as in any other way. Ribs in the mechanic arts are something that is very ancient, and used for a great many purposes, and usually for the purpose of strengthening the body of something. It is defined by Webster as being ‘a bar, strip, rod or the like used to support, strengthen or shape something, as a rib of an umbrella cover,’ also ‘a ridge, fin or wing as on a plate, cylinder, beam, etc., to strengthen or stiffen it; a prominent line or

ridge in [299] woven or knitted goods; a longitudinal strips of metal uniting the barrels of a double-barrel gun; a curved side connecting the front and back of an instrument of the violin class.' ”

## XXI .

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“Hence the question of invention is simmered down to the simple proposition as to whether or not the mere strengthening of the body of these phonographic horns by means of the addition of a well known mechanical device called a rib, involved any patentable invention. This a question for you to determine from all the facts and the evidence in the case and the law as given you by the Court.

“The Court instructs you upon this subject that it is the presumption of law that every patentee is or was fully acquainted with the state of the art concerning his invention when he applied for his patent or built his machine, Even if he were not as a matter of fact so acquainted with the prior art, still the law presumes that he was so acquainted with it, and he is not permitted to advance his claim of invention by denying it.

“In this case the inventor and patentee of the patent in suit was conclusively presumed to know of the existence of all the horns for phonographs as well as for every other purpose

then in existence. He was supposed to know how they were constructed; what the effect or results of each of them were, and the function of each element or factor making up the same, and how far they were successful [300] and to what extent they were defective. He was also presumed to have known the existence of the phonographic horns of the prior art made in a number of pieces, of longitudinally disposed strips united at their edges to form longitudinal seams, and that no two pieces of metal could be united by the joining of the longitudinal edges without creating a seam, and therefore, he of necessity, had in mind and contemplated the formation of something else than a mere seam by the expression in his patent of a rib. Or in other words, he distinguished between a seam and a rib and knew that in the joining of his strips to form the horn that there existed not only a seam or joint union between the edges of the longitudinal strips, but in addition thereto there existed an outward protrusion which formed a strengthening rib or ribs for the horn, and his patent in order to be valid must be for something far beyond anything in the prior art as to really and in fact call into action the exercise of really inventive genius. The mere discovery of some new idea, or something that is believed to be new and useful, is not the question and is not invention. The word 'discovery' as used in the patent law means identically the same as invention, and invention must be

involved in every patent in order that it be valid.

“The term ‘invention’ is not easily defined. It may be perfectly obvious in one case, and in another case its absence may be equally obvious. But it is difficult, if not impossible, to give it a definition which can apply to all cases. Its presence or absence generally depends upon the condition and circumstances of the particular case where it is in question. It must in every case, however, be something [301] more than the mere exercise of that skill which the mechanic has by reason of the ordinary knowledge which is the incident to his occupation, and general knowledge of the subject.

“The invention to be patentable must be both new and useful and the patentee must be the first and original inventor of such new and useful invention; it must involve something more than the exercise of mere mechanical skill or judgment, for invention is and must be the product of original thoughts. It involves the spontaneous conception of some idea not previously present to the mind of the inventor. Industry in exploring the discoveries and acquiring the ideas of others; wise judgment in selecting and combining their mechanical skill in applying them to practical results; none of these are creations; none of these enter into the inventive act. A mere carrying forward, or new or more extended application of an original thought; a change only in form proportions, or degree; the substitution of equivalents, doing substantially

the same thing in the same way by substantially the same means with better results; is not such invention as will sustain a patent. These rules apply alike whether what preceded was covered by a patent or rested only in public knowledge."

## XXII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

"Applying these rules of law directly to the case in hand you will take defendant's exhibits — [302] which are shown by the testimony, and if you believe them or either of them to have been made or used long prior to the date of the plaintiff's patent or the application therefor, as testified to, you will examine their construction and their mode of operation; you will ascertain how the joints are formed as shown by the models and the testimony, and what sort of protuberances there are on the outside and how they are formed, and if you find that they show a horn made up of a plurality of strips, no difference how many or how few, so there is more than one, and that the protuberances on the outside are ribs in the sense of the patent in suit, and that the union of the strips are united by means of the ordinary and old lock, lap or flanged joints or seams, then you must find for the defendant.

"A device may combine utility and novelty in a high degree and still be only the result of mechanical skill as distinguished from invention.

A person to be entitled to a patent may have invented or discovered some new and useful art, machine, manufacture or composition of matter, or some new or useful improvement thereof, but it is not enough that a thing be new in the sense that, in the shape or form in which it is produced, it shall not have been known, and that it be useful; but it must amount to an invention as required by the patent laws of the country. A mere difference or change in the mechanical construction in the size or form of the thing used, in order to obviate known defects existing in the previous devices, although such change be highly advantageous, and far better and more efficacious and convenient, does not make the improved device patentable. In order to be patentable, it must embody some new idea or principle not before known.” [303]

## XXIII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“Referring again to the exhibits mentioned, the Court instructs you that the difference in the size or form of which the patent terms the ‘rib’ and that shown in the defendant’s exhibits, would not be sufficient to constitute invention, nor would any difference in the mere shape or size of the horn, and even though the patented horn might be superior to those shown by these exhibits in producing the effect claimed by the patentee, still it would not be patentable unless some new idea, principle or function not known before was dis-

closed that would amount to actual invention. You will notice in some of these exhibits that they do disclose horns that are made up of a plurality of longitudinal strips which are united by joints or seams, which it is claimed, and the evidence seems to show, was the usual and ancient method of uniting metal strips of any kind and that they show a protuberance as before stated.

“And the Court further instructs you that if you find that these protuberances composed of the metal *cause* by the making of the joints as described, performed the same kind of service as set forth in the patent in the suit, it would not be invention to make a similar horn with larger or more extended projections or protuberances, such as is claimed in the patent to be a ‘rib.’ Even though the larger protuberance or rib of the patent might have the effect of giving the horn greater strength and thus lessening the vibratory and metallic sound, still it would not be invention and the patent would not be valid and you should find for the defendant.” [304]

#### XXIV.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“A mere change in form of an old machine, or the mere rearrangement of the parts of an old machine without producing any new result, or any result or function substantially different from the result *of* function of the old device does not constitute invention.

“If, therefore, you believe from the evidence

in the case that the plaintiff's alleged invention, if any, was merely an adaptation of the idea and principle and function disclosed by these old horns and that the alleged patented invention consisted only of such changes in the construction of these old horns as would suggest themselves to a mechanic skilled in the art without inventive conception on his part, and that the change from the old devices to the plaintiff's device required and really involved only the skill and ingenuity of the mechanic which he had by reason of his knowledge and experience in his calling, and did not require or involve the exercise of the inventive faculties, as distinguished from such skill and ingenuity, then your verdict should be for the defendant.

“And the Court further instructs you that so far as this proposition is concerned, the whole question comes down to the simple one as to whether these old horns which have been put in evidence or any of them, disclose sufficient facts in their construction or mode of operation as to suggest to the patentee in this case, or any skilled mechanic, the arrangement and combination or parts shown in the patents; that is to say, with all of these old horns before him [305] would it have required anything beyond the skill of a mechanic skilled in this art to have made such alterations and changes as may exist between the patented horn and the said old horns. If not, then the patent is void for want of invention and you must find for the defendant.”

## XXV.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“The Court instructs you that where the patent covers a combination of old element (as in this case) and the prior devices shown to exist and to have been in public use or on sale in this country, for more than two years prior to the application for a patent, suggests the same cooperation of the same elements and upon the same principle adopted by the patentee, then the patent is anticipated and void. Old devices fully capable of a use not then observed anticipates a later patent for the application of the same means to that use. Patentability cannot rest on the observation that an old device is capable of performing a useful purpose not before noticed.”

## XXVI.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“If you should finally conclude that the plaintiff’s patent covers any patentable invention and is not anticipated, it will then be your duty to consider the question of infringement. [306]

“Upon this question the Court instructs you that the plaintiff’s invention cannot be classified as a primary one, or the inventor as a pioneer in the art to which he devoted his attention. On the contrary, the Court instructs you that it clearly appears that the claimed invention con-

cerns improvements made in a well-developed art and accomplishes results which were not new, but at best, only possibly better than had been accomplished before. Therefore, the plaintiff is entitled in determining the issue of infringement or non-infringement, only to a very narrow construction of equivalents. The public should be protected against unwarranted monopoly as much as the inventor against piracy. To accomplish both of these ends the patentee is entitled to monopolize only the specific devices of his patent with such plain equivalents which go to show a clear attempt at mere evasion. But in determining what are such equivalents, the public is bound to demand a careful scrutiny so that under the protection of his patent, the patentee shall not be allowed to improperly stifle competition and enjoy an unmerited monopoly. Again, no device can be held to infringe a combination claim, such as we have in this case, unless it employs all the elements set forth in the claims of the patent. In other words, the absence of a single element of a combination claim, in the alleged infringing structure, is fatal to the charge of infringement. A patent for a described machine or mechanism which is restricted by the prior art, must be limited to the particular means described in the specification or clear mechanical equivalents, and does not embrace or cover any other mechanical construction or mode of operation, nor

[307] can the patent be so construed as to reach

out and cover anything that was old, that is, which had been made and used by the public more than two years prior to the application for the patent.

“As I have stated before, the claims of this patent call for specified means for doing certain things, that is, (a) the body portion of the horn must be composed of longitudinally arranged strips of metal formed at their edges with longitudinal outwardly directed flanges whereby said strips are connected and whereby the body portion of the horn is provided on the outside thereof with longitudinally arranged ribs substantially as described. The third claim omits the flanged edges of the metal strips, but the patent only shows the flanged edges of the strips as a method of uniting the edges, and it cannot claim any of the old methods of uniting the edges and forming the ribs.

“The Court further instructs you that a seam made in the manner shown by the testimony of the defendant's witnesses, called lapped seams, flanged seams and locked seams, cannot be construed to make the joints called for in either of the claims of the plaintiff's patent. Seams or joints made in the way described and shown in the exhibits of the defendant, do not have any longitudinal outwardly directed flanges whereby the strips are connected, and if the protrusion necessarily made by the metal in making one of these old joints is to be called a ‘rib,’ then claim 1, 2 and 3 are clearly void as hav-

ing been anticipated by the old devices referred to. It will be seen that if the protruding metal formed by the seam in the defendant's horn is a 'rib' then the protrusion on [308] the old device is a 'rib,' and the patentee invented nothing and the patent would be void. Applying the same rules to the third claim, the court instructs you that securing the strips together by means of any of these joints mentioned and shown to be old, the protrusion of metal which necessarily occurs in making such joints is not the rib mentioned or contemplated in claim 3 of the patent, and unless the defendant has made a horn with longitudinal 'ribs' arranged along the outside of the joint where the strips are secured together, in some manner substantially different from the old methods, there is no infringement. In other words, there must be a 'rib' as fully distinguished from a mere joint or seam with the metal protruding as is shown in the old devices put in evidence by the defendant.

"The Court instructs you that unless you find that the defendant has made, used or sold phonographic horns made up of a plurality of longitudinal strips, the strips having flanged edges, which the process of uniting the said flanged edges forms a rib as contra-distinguished from the old lap, lock or seam joints, then you must find the first and second claims not infringed. And unless you find that the defendant has made, used or sold phonographic horns made up of a plurality of longitudinal strips united at

their edges by some means substantially different from the old methods of uniting the edges of metal strips and at the point of such union of such strips has formed and attached longitudinal ribs along the line of union, said ribs being different from the natural protrusion of uniting the edges of metal strips under the old methods, then you must find that claim 3 is not infringed and your verdict must be for the defendant.

[309]

“The Court further instructs you that if you find the seam uniting the edges of the longitudinal strips of the defendant’s horn to be constructed in the same or substantially the same manner as the seam which unites the longitudinal edges of the strips in the horns of the prior art, as indicated by defendant’s exhibits, then the Court instructs you that there can be no infringement, and also that if you find the seam of the defendant’s horn to be the same as the seam of the plaintiff’s horn, and also the same as the seam of the horns of the prior art, as indicated by the mentioned exhibits, then the patent sued on is invalid, or as commonly termed, anticipated by the prior art and you must find for the defendant.

“And the Court further instructs you that the letters patent in suit does not cover the shape, configuration, color or general appearance of the horn disclosed thereby, but is confined to the manner of constructing the same by the joint union therein set forth and described for the

production of longitudinally disposed strengthening ribs on the exterior surface of the horn, and, therefore, you will ignore the general shape, configuration, color or general appearance of the horns in determining the question of infringement. In other words, the shape, configuration, color or general appearance is not at issue, for such is the subject-matter of design letters patent, which is not herein involved. You will, therefore, disregard the general appearance of the horns in arriving at your conclusion on the question of infringement, and confine yourself to the question as to whether the defendant's horn is constructed in the same manner for the production on the exterior of the horn of longitudinally disposed strengthening [310] ribs of complainant's horn and within the meaning of the disclosure of the letters patent in suit.

“Finally the Court instructs you that in a suit of this kind for the infringement of a patent, that upon the question of infringement, as well as all the other questions involved in the case, the burden of proof is upon the plaintiff. And the Court instructs you that unless you find from the evidence that the defendant has made, used or sold a horn for phonographs, the body portion of which is composed of a plurality of longitudinal strips, which are gradually tapered from one end to the other, and which are connected longitudinally, so as to form longitudinal ribs on the exterior surface of the horn, each

of the strips being provided at its edge with a flange, and these flanges of the separate strips being connected and forming the ribs mentioned in the letters patent in suit, your verdict must be for the defendant.

“And the Court further instructs you that in view of the evidence in this case, the plaintiff’s patent cannot be construed to cover any other kind of a horn than that described and shown in the patent in suit his invention being limited to the precise construction described. In his description he says that ‘It is the construction of the body portion of the horn, as hereinbefore described, that gives thereto the qualities which it is the object of this invention to produce.’

“The patentee was compelled to illustrate and describe, and has specifically described his invention and how it is constructed, and as the result sought by him were [311] produced by the specific construction described, and in view of the evidence of the prior art and the action of the patent office with reference to the allowance of the patent, the patentee is confined to his precise construction and description; and the Court further instructs you that in order to find a verdict of infringement against the defendant in this case you must be satisfied from the evidence in the case, beyond a reasonable doubt, that the plaintiff has made, used or sold a horn as I have described, and if you find that the defendant has not made, used or sold such

a horn, then your verdict must be for the defendant.”

## XXVII.

The said Court erred in refusing to give to the jury the following instruction requested by the defendant:

“The defendant has *instructed* in evidence a patent issued to one Villey, dated ———, ———, 1903, for the purpose of anticipating the plaintiff’s patent. The plaintiff’s expert witnesses as well as the defendant’s testified point blank that the machine described in this patent was constructed in the same manner as the machine described in the plaintiff’s patent, and in fact was the same thing. If you believe this to be true, the Court instructs you that the plaintiff’s patent is void for want of novelty and invention and you should find for the defendant.

“In determining the question as to the invention made by Nielsen, the patentee, you must consider all of the evidence and exhibits introduced which was shown to have been in use prior to the date of the plaintiff’s patent and see if there is any substantial difference which involved invention, to produce between these old horns of the prior art and that [312] covered by the patent under the rules of law given to you by the Court, and if you should find that there is invention, the next question is what was the invention of the patentee, and whether the defendant has sold any horns such as comes within the terms of the patent as ex-

plained to you by the Court, and if defendant has not sold any such horns your verdict must be for the defendant.”

WHEREFORE, the defendant, Sherman Clay & Company, prays that the judgment of the said District Court of the Northern District of California, Second Division, be reversed and that said Court be directed to grant a new trial of the said cause.

N. A. ACKER,  
J. J. SCRIVNER,  
Attorneys for Defendant.

[Endorsed]: Filed May 17, 1913. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [313]

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*In the District Court of the United States, in and for  
the Northern District of California, Second  
Division.*

SEARCHLIGHT HORN COMPANY (a Corporation),

Plaintiff,

vs.

SHERMAN CLAY & COMPANY (a Corporation),  
Defendant.

**Order Allowing Writ of Error and Extending Time  
for Settlement of Bill of Exceptions.**

Upon motion of N. A. Acker and J. J. Scrivner, attorneys for the defendant above named, and upon the filing of a petition of the said defendant for a writ of error together with the assignment of errors in due form, it is hereby ordered that a writ of error to the United States Circuit Court of Appeals for

the Ninth Circuit be allowed as prayed for in the said petition, and that the amount of the bond to be given by the said defendant upon the said writ of error be, and the same hereby is fixed at the sum of Two Thousand (\$2,000) Dollars, and it is further ordered that upon the giving of such security all further proceedings in this court be suspended and stayed until the determination of the said writ of error by the said Circuit Court of Appeals, excepting the settlement and allowance of the defendant's bill of exceptions, which matter is hereby continued until the date hereafter to be set during the present term of this court.

Dated May 17th, 1913.

WM. C. VAN FLEET,  
Judge of the District Court.

[Endorsed]: Filed May 17, 1913. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [314]

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*In the District Court of the United States for the  
Northern District of California, Second Division.*

No. 15,326.

SEARCHLIGHT HORN COMPANY,  
Plaintiff,

vs.

SHERMAN-CLAY & COMPANY,  
Defendant.

**Undertaking on Writ of Error.**

Know All Men by These Presents, That the  
Fidelity & Deposit Company of Maryland, a corpora-

tion organized and existing under and by virtue of the laws of the State of Maryland, is held and firmly bound unto Searchlight Horn Company, a corporation, in the sum of Two Thousand Dollars, to be paid unto the said Searchlight Horn Company, its successors and assigns, for which payment, well and truly to be made, the Fidelity & Deposit Company of Maryland binds itself, its successors and assigns, firmly by these presents, sealed with its corporate seal and dated this 22d day of May, 1913.

The condition of the above obligation is such that whereas lately at a session of the United States District Court for the Northern District of California, Second Division, in an action at law then pending, wherein Searchlight Horn Company was plaintiff, and Sherman-Clay & Company, the defendant, a judgment was made and entered on the 4th day of October, 1912, in favor of the plaintiff and against the defendant for the sum of Three Thousand Five Hundred and Seventy-eight Dollars damages and costs, from which said judgment all moneys over and above the nominal amount of One Dollar and cost was formally and in writing remitted by the plaintiff on the 25th day of April, 1913. [315]

And whereas the said defendant has obtained from said Court a writ of error to reverse the judgment aforesaid, and a citation is about to be issued directing the said plaintiff to be and appear in the United States Circuit Court of Appeals for the Ninth Circuit.

Now, therefore, if said defendant shall prosecute said writ of error to effect and shall answer all dam-

ages and costs that may be awarded against it if it fails to make its plea good, then the above obligation to be void; otherwise to remain in full force and virtue.

FIDELITY AND DEPOSIT COMPANY  
OF MARYLAND. [Seal]

By PAUL M. NIPPERT,

Attorney in Fact.

Attest: JOHN D. ALCOCK, Jr.,

Agent.

Approved.

WM. C. VAN FLEET,

Judge.

[Endorsed]: Filed May 23, 1913. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [316]

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*In the District Court of the United States, in and for  
the Northern District of California, Second  
Division.*

ACTION AT LAW—No. 15,326.

SEARCHLIGHT HORN COMPANY (a Corpora-  
tion),

Plaintiff,

vs.

SHERMAN, CLAY & COMPANY,

Defendant.

**Order for Withdrawal of Exhibits.**

Good cause appearing therefor, it is hereby ordered that all exhibits filed by the plaintiff and by the defendant to the foregoing action and contained within the file thereof, and all models in the posses-

sion of the clerk of this court, may be withdrawn for the purpose of being transmitted to the United States Circuit Court of Appeals for the Ninth Circuit, the same to be returned to the clerk of this court on the final determination of said cause.

WM. C. VAN FLEET,

Judge.

[Endorsed]: Filed Aug. 16, 1913. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [317]

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**[Certificate of Clerk U. S. District Court to  
Transcript of Record.]**

*In the District Court of the United States, in and for  
the Northern District of California, Second  
Division.*

No. 15,326.

SEARCHLIGHT HORN COMPANY (a Corpora-  
tion),

Plaintiff,

vs.

SHERMAN, CLAY & COMPANY,

Defendant.

I, Walter B. Maling, Clerk of the District Court of the United States, in and for the Northern District of California, do hereby certify the foregoing three hundred and seventeen (317) pages, numbered from 1 to 317, inclusive, to be a full, true and correct copy of the record and proceedings in the above and therein entitled cause, as the same remains of record and on file in the office of the Clerk of said court, and

that the same constitutes the return to the annexed writ of error.

I further certify that the cost of the foregoing return to Writ of Error is \$186.50, that said amount was paid by N. A. Acker, attorney for the above-named defendant; and that the original writ of error and citation issued in said cause are hereto annexed.

In testimony whereof, I have hereunto set my hand and affixed the seal of said District Court, this 18th day of August, A. D. 1913.

[Seal]                      WALTER B. MALING,  
Clerk United States District Court, Northern District of California. [318]

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**[Writ of Error (Original).]**

UNITED STATES OF AMERICA,—ss.

The President of the United States, to the Honorable, the Judges of the District Court of the United States for the Northern District of California, Greeting:

Because, in the record and proceedings, as also in the rendition of the judgment of a plea which is in the said District Court, before you, or some of you, between Sherman-Clay & Company, plaintiff in error, and Searchlight Horn Company, defendant in error, a manifest error hath happened to the great damage of the said Sherman-Clay & Company, plaintiff in error, as by its complaint appears.

We, being willing that error, if any hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment be therein given, that then

under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the United States Circuit Court of Appeals for the Ninth Circuit, together with this writ, so that you have the same at the City of San Francisco, in the State of California, on the twenty-second day of June next, in the said Circuit Court of Appeals, to be then and there held, that the record and proceedings aforesaid being inspected, the said Circuit Court of Appeals may cause further to be done therein to correct that error, what of right, and according to the laws and customs of the United States, should be done.

Witness, the Honorable WILLIAM C. VAN FLEET, District Judge of the United States, the 23d day of May, in the year of our Lord One Thousand Nine Hundred and Thirteen.

[Seal]                      WALTER B. MALING,  
Clerk of the District Court of the United States,  
Northern District of California.

By J. A. Schaertzer,  
Deputy Clerk.

Allowed by

WM. C. VAN FLEET,  
Judge.

Service of within Writ and receipt of a copy thereof is hereby admitted this 23d day of May, 1913.

MILLER & WHITE,  
Attorney for ———.

The answer of the Judges of the District Court of the United States in and for the Northern District of California.

The record and all proceedings of the plaint whereof mention is within made, with all things touching the same, we certify under the seal of our said Court, to the United States Circuit Court of Appeals for the Ninth Circuit, within mentioned at the day and place within contained, in a certain schedule to this writ annexed as within we are commanded.

By the Court.

[Seal]

W. B. MALING,

Clerk.

[Endorsed]: Original. No. 15,326. District Court of the United States, Northern District of California. Sherman-Clay & Company, Plaintiff in Error, vs. Searchlight Horn Company, Defendant in Error. Writ of Error. Filed May 24, 1913. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [319]

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**[Citation on Writ of Error (Original).]**

UNITED STATES OF AMERICA,—ss.

The President of the United States, to Searchlight Horn Company, Greeting:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals, for the Ninth Circuit, to be holden at the City of San Francisco, in the State of California, on the 22d day of June, 1913, being within thirty days from the date hereof, pursuant to a Writ of Error filed in the Clerk's office of the District Court of the United States, for the Northern District of California wherein Sherman-Clay & Company is plaintiff in er-

ror, and you are defendant in error, to show cause, if any there be, why the Judgment rendered against the said plaintiff in error, as in the said writ of error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS, the Honorable WILLIAM C. VAN FLEET, United States District Judge for the Northern District of California, this 23d day of May, A. D. 1913.

WM. C. VAN FLEET,  
United States District Judge.

Service of within Citation, by copy, admitted this 23d day of May, A. D. 1913.

MILLER & WHITE,  
Attorney for —————.

[Endorsed]: Original. No. 15,326. In the District Court of the United States, Northern District of California. Sherman-Clay & Company, Plaintiff in Error, vs. Searchlight Horn Company, Defendant in Error. Citation. Filed May 24th, 1913. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [320]

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[Endorsed]: No. 2306. United States Circuit Court of Appeals for the Ninth Circuit. Sherman-Clay & Company, a Corporation, Appellant, vs. Searchlight Horn Company, a Corporation, Appellee. Transcript of Record. Upon Appeal from

the United States District Court for the Northern District of California, Second Division.

Received and filed August 18, 1913.

FRANK D. MONCKTON,  
Clerk of the United States Circuit Court of Appeals  
for the Ninth Circuit.

By Meredith Sawyer,  
Deputy Clerk.

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**[Order Enlarging Time to July 20, 1913, to File  
Record and Docket Cause in Appellate Court.]**

*In the United States Circuit Court of Appeals for the  
Ninth Circuit.*

SHERMAN, CLAY & COMPANY,

Plaintiff in Error,

vs.

SEARCHLIGHT HORN COMPANY,

Defendant in Error.

Good cause appearing therefor, it is ordered that the plaintiff in error may have to and including the 20th day of July, 1913, within which to file its Transcript of Record on Writ of Error and to docket the cause in the United States Circuit Court of Appeals for the Ninth Circuit.

Dated June 20, 1913.

WM. W. MORROW,  
United States Circuit Judge, for the Ninth Judicial  
Circuit.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Rule 16 Enlarging Time to ——— to File

Record Thereof and to Docket Case. Filed Jun. 20, 1913. F. D. Monckton, Clerk.

**[Order Enlarging Time to August 18, 1913, to File Record and Docket Cause in Appellate Court.]**

*In the United States Circuit Court of Appeals for the Ninth Circuit.*

SHERMAN-CLAY & COMPANY,

Appellant,

vs.

SEARCHLIGHT HORN COMPANY,

Appellee.

Good cause appearing therefor, it is ordered that the plaintiff in error in the above-entitled cause may have to and including the 18th day of August, 1913, within which to file its record on writ of error and to docket cause in the United States Circuit Court of Appeals for the Ninth Circuit.

Dated July 18, 1913.

WM. W. MORROW,

United States Circuit Judge.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Rule 16 Enlarging Time to ——— to File Record Thereof and to Docket Case. Filed Jul. 18, 1913. F. D. Monckton, Clerk.

No. 2306. United States Circuit Court of Appeals for the Ninth Circuit. Two Orders Under Rule 16 Enlarging Time to Aug. 18, 1913, to File Record Thereof and to Docket Case. Refiled Aug. 18, 1913. F. D. Monckton, Clerk.